October 11, 2022

Graves Light Lenhart Q4'22 Client Newsletter

Main Points:

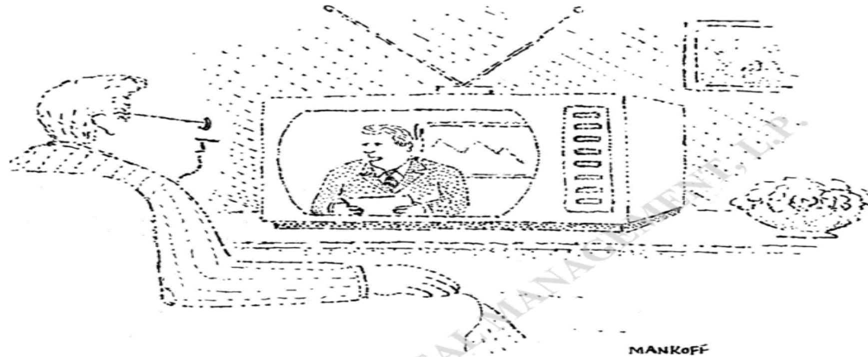
- The recently completed September quarter started off with a bang. The S&P 500 jumped 9.2% during July but fell to an overall loss of 4.9% for the quarter as a whole. Bonds and commodities experienced similar outcomes. Much like the previous quarter, "there was no place to hide".

- The markets are hostage to the Federal Reserve's reaction to inflationary pressures, which has resulted in wild price swings. The current environment can best be described as "good news is bad news and bad news is good news" as strong economic signals portend more aggressive rates hikes leading to a recession while softer reports are greeted with hopes that the Federal Reserve will soften its approach.

- We have concerns regarding an impending recession. The classic yield curve inversion between the 3-month Treasury Bill and the 10-year Treasury Note has not occurred, even though the rest of the yield curve has been inverted for weeks. In addition, the Atlanta Fed's GDPNow calculation shows Q3'22 (September quarter) real GDP is now tracking at a healthy 2.9% annualized rate. Nonetheless, we believe the odds of a recession are at least 50% due to Fed and global central bank tightening, the reversal from quantitative easing (QE) to quantitative tightening (QT), knock-on effects from the Ukraine/Russia War, etc.

- We have considered the probable effects from a recession in our portfolio positioning. However, we will not attempt to engage in large-scale, active market timing. Those who try to side-step potential market declines are implicitly obligating themselves to repurchase at lower prices where the news flow/fact pattern will be worse than when they sold. Such plans rarely work to investors' benefit.

- As a result, the overall character of our equity investments remains meangingfuly different than the S&P 500, with a focus on value, small-cap, and international stocks. As of September 30th, the S&P 500 was down 24% from its all-time high in January. In either case, the current bear market cycle has further potential downside risk based upon historical precedent. The risk/reward of many areas of the fixed income markets have become more interesting to us, which is fleshed out as a focal point of this letter.



"On Wall Street today, news of lower interest rates sent the stock market up, but then the expectation that these rates would be inflationary sent the market down, until the realization that lower rates might stimulate the sluggish economy pushed the market up, before it ultimately went down on fears that an overheated economy would lead to a reimposition of higher interest rates."

The most recent quarter (September-end) witnessed losses across asset classes and, therefore, client accounts. In our previous quarterly newsletter (June-end), we wrote that "there was no place to hide", which, unfortunately, succinctly summed up the latest quarterly experience as well. The September quarter started in a promising fashion with strong returns during July as the S&P 500 jumped 9.2%, the Bloomberg Barclays Aggregate Bond Index rose 2.4%, and the Bloomberg Commodity Index increased 4.3%. However, spiking interest rates resulting from inflation fears and an aggressive Federal Reserve drove bond prices lower with the Bloomberg Barclays Aggregate recording a loss of 4.8% for the quarter overall. Likewise, inflation worries compounded by an aggressive Fed and the specter of recession weighed upon stocks with the S&P 500 experiencing an overall quarterly loss of 4.9%. Commodities, as measured by the Bloomberg Commodity Index, performed slightly better but recorded an overall quarterly decline of 4.1% as the combined headwinds of recession worries and the remarkable strength of the U.S. dollar ($) became too powerful to overcome.

Bear markets are taxing emotionally and financially. As a result, investors often succumb to psychological pressure to "ease the pain", which often leads to long-term agony as such losses are formally realized with the proceeds tucked into safer investments just before markets rebound. We don't know when or where the markets will bottom during the current cycle. We've provided historical benchmarks solely for a frame of reference to help investors maintain the requisite confidence to stick with their plans.

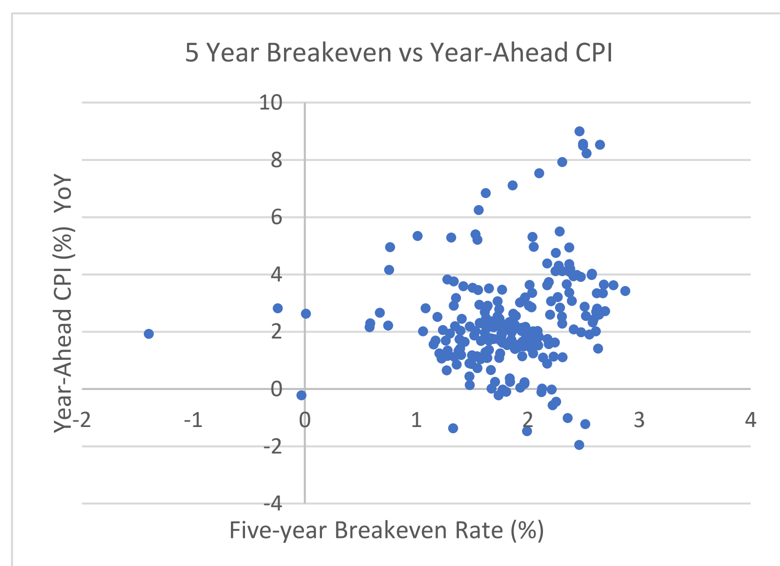
Including the COVID related market collapse of 2020, there have been 14 bear markets since WWII with a median decline in the S&P 500 of 30.22% over 359 days; the worst bear market was the -51.93% decline over 403 days during the 2007-2008 Great Financial Crisis. Bear markets that incorporate recessions--eight started within two years of the start of a recession out of the fourteen total bear markets--experience deeper drops over longer periods (median of -34.99% over 449 days) compared to the six bear markets not associated with recessions (median of -28.22% over 198 days). As of September 30th, the S&P 500 was down 24% from the all-time high in January. In either case, the current bear market cycle has further potential downside risk based upon historical precedent. The risk/reward in many areas of the fixed income market have become more interesting to us, which is fleshed out as a focal point of this letter.

Market & Economic Overview

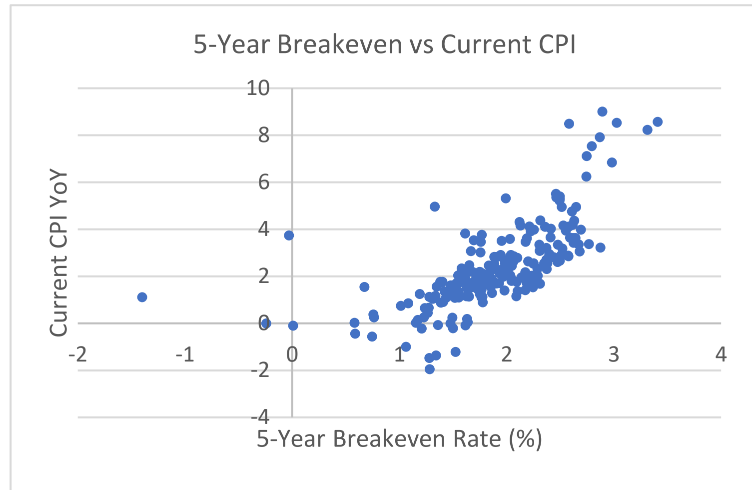
Global economic growth continued to experience tepid growth through the third quarter. Closer to home, the U.S. economy appears to have generated positive GDP growth, which is an improvement from the -1.6% annualized GDP growth rate in the first quarter and -0.6% the second quarter. Nonetheless, aggregate economic activity during 2022 so far has been disappointing as the war in Ukraine, supply chain disruptions and other headwinds continue to present challenges. Further, this has all been accompanied by the most significant bout of inflation in the last 40 years both at home and across the world. While inflation has been surprisingly pervasive and persistent, there are signs that we may be near an inflationary peak; the rate of inflation gains may moderate but we doubt that price increases quickly moderate back to the Fed's target of 2%. However, continued aggressive Fed actions to control inflation raise the possibility that its intervention may push a steady but unimpressive domestic economy into recession.

The Consumer Price Index (CPI) edged up 0.1% for the month of August, which pushed the measure up 8.3% for the entirety of the preceding year. The last time inflation was this high was back in 1981, when annual inflation ran at 10.3%. Many factors have played into this striking jump in consumer prices. The substantial increase in the money supply induced by the Fed and by U.S. Government expenditures due to the Covid crisis was the likely initial cause of the current bout of inflation. However, this has been magnified and prolonged by frequent snarls in business supply chains (which have been exacerbated by Covid-related shutdowns in China), the war in Ukraine (which significantly increased energy prices, and may yet again), the partial return of U.S. workers to the office (which further increases energy prices through the increased consumption of fuel) and a substantial dip in housing starts in spring of 2020 (which induced a degree of scarcity in the housing market, driving up prices). Many of these pressures are beginning to ease, though not all of them, and it seems unlikely that the economy will quickly return to the 2% annual inflation that is the Federal Reserve's stated goal.

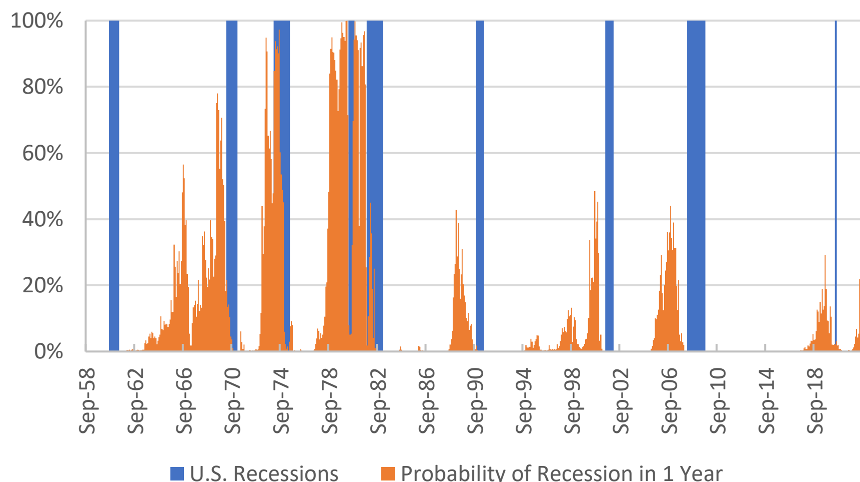
So what are current expectations for inflation over the next year? Many professionals refer to market-based measures such as the breakeven rates of inflation. These measures take the difference between nominal yields on Treasuries and the real yield on an inflation-linked Treasury bond. The result is a forward-looking estimate of inflation. Unfortunately, recent work as well as our own research indicates that these market-derived measures of inflation expectations have almost **no forecasting power for inflation over the next year** (see



the scatterplot for 5-Year Breakeven vs Year Ahead CPI). Indeed, our research indicates that the breakeven rates are mostly just reflective of *current* CPI levels (see the scatterplot of 5-Year Breakeven vs Current CPI), but this isn't particularly helpful since we already know current CPI. Inflation surveys of consumers do not appear to be any more helpful. Similar to market derived measures, surveys appear to also be primarily reflective of current, rather than future, conditions. The median professional forecast of average annual price increases over the next five years is about 3.5% according to a Bloomberg survey, and about 4.2% according to EVRISI. These forecasts provide a reasonable starting point for inflation expectations. However, it is wise to exhibit a bit of skepticism of published inflation forecasts.



With inflation at current levels, a Federal Reserve committed to bringing those inflation levels down, and a host of other uncertainty-inducing events unfolding both domestically and internationally, economic risk is currently elevated. One reliable indicator of economic risk (i.e. recession) is the slope of the U.S. yield curve. Campbell Harvey, a Professor of Finance at Duke University, first introduced decades ago that it has historically been the case that when the yield curve is downward sloping (meaning that interest rates for longer terms are lower than interest rates for shorter terms), the risk of recession is high. Extending this work to include the effects of inflation, we have developed an internal model that provides an estimate of the probability that the U.S. economy will be in a recession twelve months from today. At the beginning of Q4 2022, that model estimates about a 35% chance that the U.S. economy will be in recession in one year. As can be seen in the figure, the model only occasionally gives readings at this elevated level. This is actually down from the readings over the summer, which reached estimates of almost 50%. The uncertainty in the model is probably high enough that this 15% variation is relatively unimportant, and that the risk of a recession is high enough to merit serious concern.



Driving the risk of recession is, of course, the current undertaking of the Federal Reserve to raise interest rates. The Fed does this in several ways, from raising the Federal Funds rate (which is the rate at which banks borrow and lend their excess reserves overnight), to selling assets from their balance sheet. By selling assets, the Fed increases interest rates and reduces growth in the supply of money. This makes the dollar scarcer and increases its value. As interest rates rise, businesses borrow less to invest, consumers borrow less to spend, and so on the margin economic activity slows. Therefore, the Fed's commitment to lower inflation is a much quieter commitment to slowing economic growth. Right now, the Fed has pledged to raise rates and lower inflation, and so consumers and businesses alike are bracing for a weaker economy. The difficult question at the moment is one of degree. How much damage must the Fed inflict on the economy to reach its goal of reducing inflation to its target of about 2%?

One of the primary hurdles to reducing inflation to the 2% level is the currently strong employment market. The U.S. unemployment rate is currently 3.5%, which is in-line with its 50-year low. Further, the U.S. labor force participation rate remains very low, around 62.4%, indicating that many individuals has simply opted out of the workforce altogether. There remains a vigorous debate as to why this participation rate remains so low, but the effect is the same regardless of the cause: employed workers have a bargaining power that they have not had in decades. This bargaining power puts an upward pressure on wages, and therefore an upward pressure on inflation unless labor productivity can offset the inflationary pressure resulting from such wage increases. In 2020 and 2021, labor productivity increased dramatically, but in 2022, it has fallen, contributing significantly to inflation. In our opinion, it is difficult to see how inflation will be able to be brought under control without a meaningful increase in the unemployment rate.

Globally, developed economies have been under considerable pressure recently, and are likely to struggle a bit more than the U.S. economy. The struggles of developed economies have contributed to the relative strength of the U.S. dollar against major foreign currencies, including the Euro (€), British Pound (£), Japanese Yen (¥), and Chinese Yuan (CN¥). For example, the U.S. dollar recently crossed parity with the Euro and is currently worth about €0.98. This represents a material decline for the Euro, which was trading above €1.20 in July 2021.

Among the economies struggling abroad is China, which faces the very real risk of a significant housing crisis. Such a housing crisis would be particularly difficult in China, where the property market is

estimated to be between 20% and 30% of GDP.[1] About 30% of China's property loans are now estimated by Citibank to be nonperforming[2], and home prices declined about 1.3% across 70 Chinese cities. This situation was first brought forcefully to light last year when Evergrande, a major Chinese property firm, warned that it may not be able to service its debt. Circumstances have been further exacerbated by Covid lockdowns imposed by China's "Zero-Covid" policy.

In the United Kingdom, a challenging economic environment coupled with questionable and uncertain policy proposals have led to significant turmoil in the bond market and contributed to the decline of the pound. In late September, the British government introduced a budget with substantial tax cuts lacking offsetting reductions in spending. The market reaction was swift, with a substantial increase in the yield of British government debt, a fall in the value of the pound, and ultimately an emergency intervention by the Bank of England. As of the beginning of the quarter, Prime Minister Liz Truss had announced a reversal of the plan to cut taxes to the highest earners. Injecting this degree of policy uncertainty will have a disruptive effect on any economy, and this kind of market turmoil in such a large economy inevitably reverberates to some extent throughout economies around the globe.

Meanwhile, the war in the Ukraine continues, with Ukraine mounting a substantial offensive in the last month, reclaiming over 2,300 square miles from Russian occupation in September. However, Russia still controls about 116,000 square miles of Ukrainian territory (including Crimea), and Russia recently "upped the ante" by declaring several Ukrainian regions now part of the Russian Federation. In addition to the obvious humanitarian disaster in Ukraine, the combat there has notable effects on global asset markets, most notably grain and energy. The effects on the energy market are complicated. The uncertainty of the situation naturally puts upward pressure on energy prices. Further, reduced energy exports from Russia restrain supply and elevate prices. However, much of this uncertainty is already priced into the market. Indeed, perhaps this uncertainty even created a premium, as energy prices have fallen substantially over the last few months from the early days of the war. Presently, the path of energy prices are difficult to foresee and may well take diverging paths in different geographic regions this winter, with Europe at particular risk.

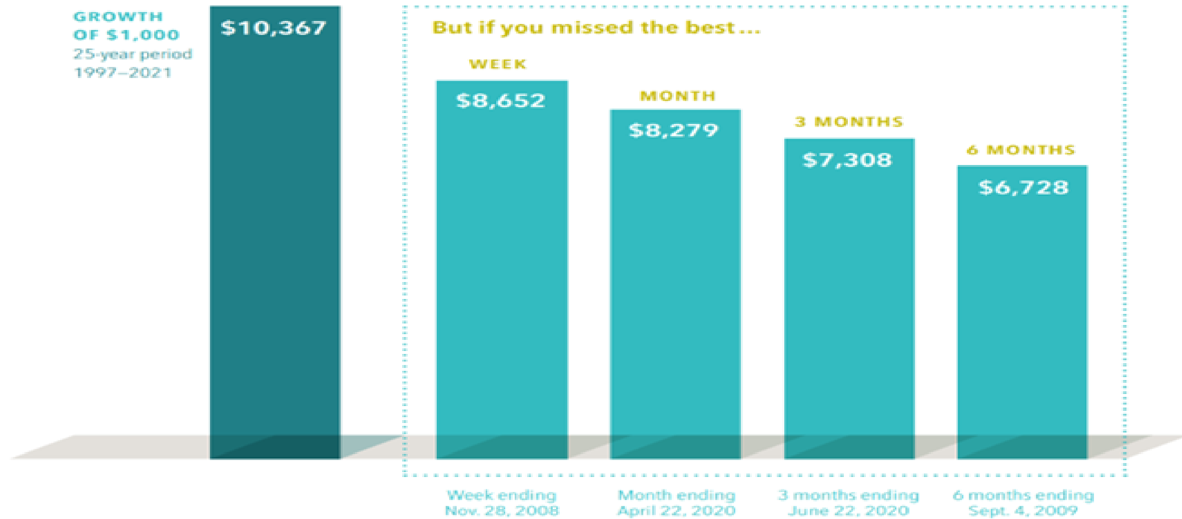
Timing the Market

Naturally, no one wants to experience further losses, especially if a recession does occur. The temptation is to sell now with the intention of repurchasing the asset exposure following the expected price drop, which is commonly referred to as market-timing. It is very important to appreciate that the risk of missing the strongest part of the rebound is ominous. As shown by the following chart from Dimensional Fund Advisors (DFA), missing only the best week during the entire 25-year period resulted in a 16.5% reduction in ending wealth. Missing the best six-month period resulted in a 35% reduction! Those who try to side-step potential market declines are implicitly obligating themselves to repurchase at lower prices where the news flow/fact pattern will be worse than when they sold. Such plans rarely work to investors' benefit.

Source: DFA

[1] See https://www.theguardian.com/business/2022/sep/25/china-property-bubble-evergrande-group
[2] See https://www.bloomberg.com/news/articles/2022-09-19/china-s-property-bad-loan-ratio-surges-to-almost-30-citi-says

The Cost of Trying to Time the Market



Asset Allocation

Even with the sharp decline already experienced by the S&P 500 so far during the current cycle, we continue to believe the potential annualized return of the index over the next five years is meaningfully below the long-term average of 10%. As a result, the overall character of our equity investments remains meangingfuly different than the S&P 500, with a focus on value, small-cap, and international stocks.

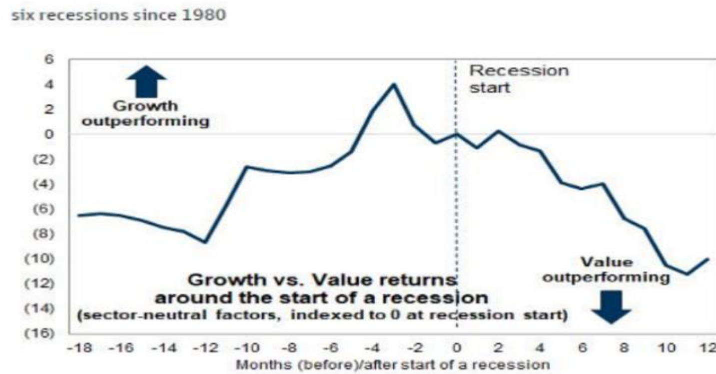
Nonetheless, movements of the S&P 500 will impart a gravitational pull on other segments of the overall equity markets. Based upon historical precedent over the 1957-2020 period, S&P 500 EPS estimates have declined roughly 15% on averge during recessions. The current consensus S&P 500 EPS estimate for 2023 is approximately $240. If we assume that this estimate drops by 15%, the resulting EPS would be in the $205 range, resulting in a Price/Earnings (P/E) ratio of 17.6x versus the current S&P 500 value of 3,610. If EPS grow from 2023, a 17.6x P/E on trough EPS is not unreasonable, assuming inflation decreases meaningfully. However, it should not be considered cheap and one must appreciate the risk of further declines. The matrix to the right can be used to calibrate the potential risk.

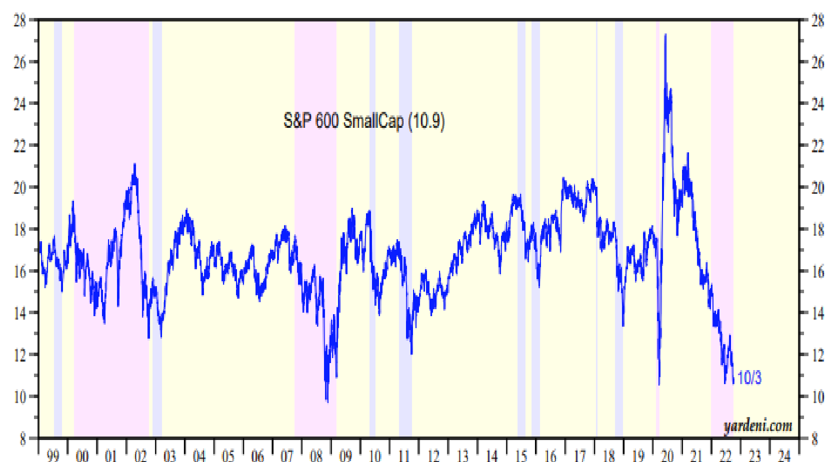
Estimated 2023 S&P 500 EPS

Forward P/E Multiple	$ 200.00	$ 205.00	$ 215.00	$ 225.00	$ 235.00	$ 245.00
11	2200	2255	2365	2475	2585	2695
12	2400	2460	2580	2700	2820	2940
13	2600	2665	2795	2925	3055	3185
14	2800	2870	3010	3150	3290	3430
15	3000	3075	3225	3375	3525	3675
16	3200	3280	3440	3600	3760	3920
17	3400	3485	3655	3825	3995	4165
18	3600	3690	3870	4050	4230	4410
19	3800	3895	4085	4275	4465	4655
20	4000	4100	4300	4500	4700	4900

We continue to like value stocks, which remain much more reasonably priced. In addition, such stocks have outperformed historically during the onset of recessions and the transition into a new bull market; please see past quarterly newsletters for more detail.

Value tends to outperform around the start of a recession...





* Price divided by 52-week forward consensus expected operating earnings per share.
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Blue shaded areas are correction declines of 10% to less than 20%.
Yellow areas are bull markets.
Source: I/B/E/S data by Refinitiv and Standard & Poor's.

In our opinion small-cap stocks provide one of, if not the, best long-term equity market opportunities. Currently, the S&P 600 Small-Cap's P/E ratio of 10.9x on expected EPS over the next twelve months is near both the COVID and '08/Great Financial Crisis lows (see chart to the right). EPS estimates will likely turn meaningfully lower if a severe recession develops, but the current undemanding valuation provides cushion for near-term disappointment and above average long-term return potential. However, small caps will likely remain more volatile than the market as a whole.

Returns	2022 YTD		2021		15-years	
	Local	USD	Local	USD	Ann.	Beta
Regions						
U.S. (S&P 500)	-	-23.9	-	28.7	10.7	0.90
AC World ex-U.S.	-15.8	-26.2	13.5	8.3	4.2	1.07
EAFE	-14.1	-26.8	19.2	11.8	4.1	1.04
Europe ex-UK	-21.0	-31.2	24.4	16.5	4.8	1.18
Emerging markets	-20.5	-26.9	0.1	-2.2	4.8	1.18
Selected Countries						
United Kingdom	-1.3	-18.6	19.6	18.5	2.3	1.02
France	-17.1	-28.6	29.7	20.6	4.7	1.22
Germany	-27.0	-37.1	13.9	5.9	4.7	1.31
Japan	-7.1	-26.1	13.8	2.0	3.4	0.72
China	-29.4	-31.1	-21.6	-21.6	5.8	1.10
India	-0.8	-9.4	28.9	26.7	6.7	1.26
Brazil	8.6	11.8	-11.2	-17.2	0.9	1.50
Korea	-27.8	-40.0	0.8	-7.9	5.9	1.49

Source: FactSet, Federal Reserve, MSCI, Standard & Poor's, J.P. Morgan Asset Management. All return values are MSCI Gross Index data. 15-year history based on USD returns. 15-year return and beta figures are calculated for the time period 12/31/2006 to 12/31/2021. Beta is for monthly returns relative to the MSCI AC World Index. Annualized volatility is calculated as the standard deviation of quarterly returns multiplied by the square root of 4. Chart is for illustrative purposes only. Please see disclosure page for index definitions. Past performance is not a reliable indicator of current and future results. EM North Asia includes China, Taiwan and South Korea. EM South Asia includes India, Indonesia, Malaysia, Pakistan, Philippines, Taiwan and Thailand.
Guide to the Markets – U.S. Data are as of September 30, 2022.

International stocks have been disappointing for U.S. based investors for some time despite much more attractive valuations and inclusion of many industry-leading companies. Over time, U.S. and international stocks have provided similar long-term returns for U.S./$ based investors. However, currency swings often accentuate the cyclical outperformance of one group versus the other. As a result, large currency swings can overshadow the progress of companies based in countries with depreciating currencies. The table on the previous page highlights how the strong U.S. dollar has dominated the returns many international

stocks have experienced in their own currencies through the first three quarters of 2022. For example, the EAFE (a commonly used proxy for international stocks) was down 26.8% (measured in $) versus the S&P 500's 23.9% decline on a year-to-date basis through September 30th. However, EAFE's decline was almost cut in half when measured in the requisite currencies of the constituent countries, which was meaningfully superior to the S&P 500's return despite the most immediate exposure to the Ukrainian/Russian war. Currency markets are notoriously difficult to forecast and the current strength of the dollar may last for some time. Nonetheless, our work shows that international stocks have superior long-term potential and offer a hedge against future dollar weakness.

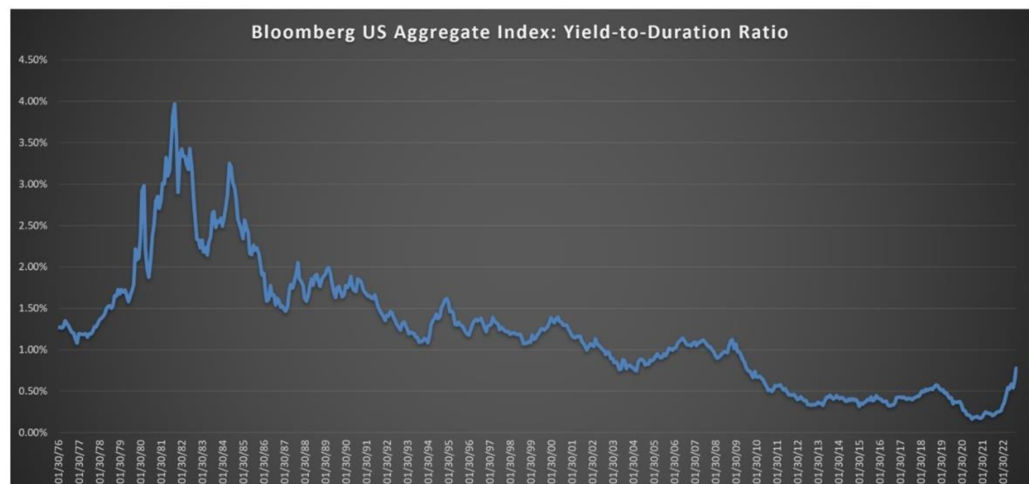
Fixed Income Market

After experiencing a brutal and historic selloff year-to-date, there are now many parts of the fixed income market which have become attractive, providing greater utility for portfolios. The key driver to the rapid decline across bond markets globally has been the proliferation of financial tightening with central bankers raising interest rates at a record pace in order to tame inflation. With inflation at or close to four-decade highs domestically, US central bank officials now forecast that the Federal Funds Rate will reach 4.4% by the end of this year and 4.6% in 2023, a seismic step-up from the 0-0.25% target range set by the Federal Reserve to start the year. The ripple effects have been tremendous, and for many market participants, painful.

While swift bond price declines can be upsetting, it's important to remain focused on the long-term benefits of higher interest rates. Bond total returns have two main components, price return and return from income. Changes to interest rates cause these two components to move in opposite directions. Ultimately, long-term investors should care more about total returns instead of the negative short-term impact on prices. Importantly, the long-term performance of bond investments has come mostly from the income return, not price return.

To provide illustration on the bond market's recent plummet, we like to look at the "Sherman Ratio", named after DoubleLine's Deputy Chief Investment Officer, Jeffrey Sherman. This ratio basically shows the amount of yield investors earn for each unit of duration (representing interest rate sensitivity). Looking at monthly, historical data, the Sherman Ratio bottomed out last summer at 0.16%, placing high quality bonds at elevated risk for a dramatic decline even if rates only moved slightly upward. At the time, investors had never accepted so little yield to compensate for interest rate variability!

As the chart to the right reveals, the Sherman Ratio now stands at a much healthier level (0.78%) at September-end. While above the most recent decade average, there is clearly risk that rates could go



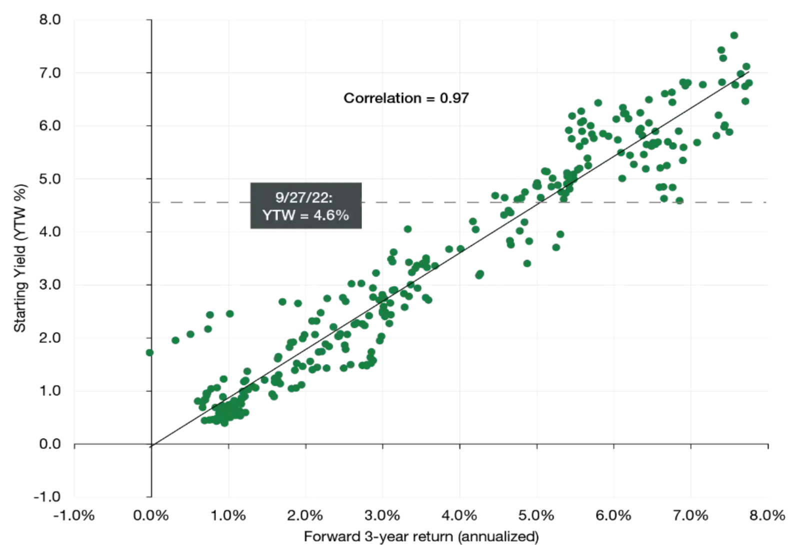
higher. However, broad bond market compensation levels are at a point where the overall yield of these instruments can provide a much greater buffer were bond prices to further decline. For example, the 1-3 year Corporate Bond Index now has a yield of 5.3% and an effective duration of 1.9 years. Assuming the market begins to price in even more aggressive Fed action than anticipated, and market yields move 1% higher from here across the curve, one would anticipate a resultant price decline of roughly 1.9%. However, the 5.3% income earned over the course of the full year would offset price declines, resulting in a positive 3.4% return. When comparing to the 2021 low of 0.5% yield, this clearly creates a substantially different and more favorable dynamic.

With the sharp repricing of Fed expectations and sharply higher yields across the yield curve, essentially all duration points of the bond market are down in 2022. Generally, the further out the interest rate curve, the more penalized year-to-date returns have been. For context, as of September 30th, 2-year US Treasury bonds have declined by 4.6% year-to-date compared to a 31.2% decline for 30-year US Treasury bonds. While this move in yields has caused some real pain, it has created attractive opportunities in fixed income securities, specifically for those carrying low duration or interest rate sensitivity. The average yield on the Bloomberg 1-3 year Gov/Credit index – a broad measure of short-term US Treasuries and investment-grade corporate bonds – is 4.5% as of September 30th, over 5x(!) higher than year-end 2021 levels. One must go back to 2007, at the onset of the Great Financial Crisis, to find a higher starting yield for this index.

Why is the starting yield so imperative? When looking back over history, one will observe that starting yield is highly correlated with prospective returns. The figure to the right summarizes the starting yield on the 1-3 year Gov/Credit Index (vertical axis) and the subsequent three-year returns (horizontal axis). While dispersions occur during periods of significant volatility, over time, returns tend to follow the entry yield-point. According to Lord Abbett research and based on data going back to 1994, the correlation between starting yield and forward three-year returns for this market has been very high at 97%.

Figure 5. Short-Term Bonds' Starting Yields Are Highly Correlated with Forward Returns

Starting yields versus three-year returns for the Bloomberg 1-3 Year Government/Credit Index, January 1994–August 2022

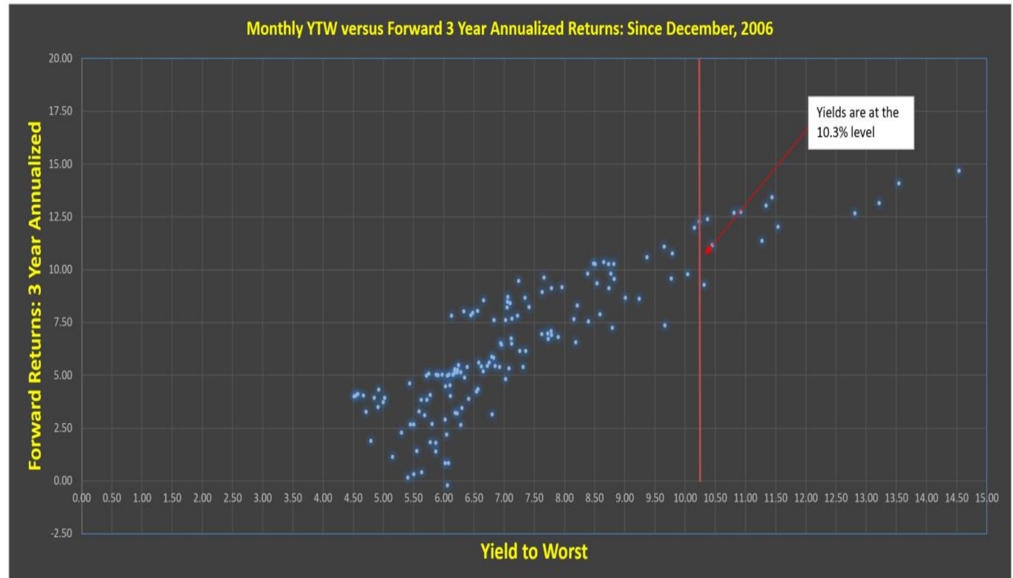


Source: Bloomberg and ICE BofA index data. Correlation is a statistical measure that describes the strength of relationship between two variables. It can vary from 1.0 to -1.0.

Recently, we have also highlighted that High Yield bonds (commonly known as "Junk bonds") are trading at appealing levels for investors carrying a medium-to-longer time horizon. A combination of both higher interest rates and an uptick in the probability of a recession (represented by widening credit spreads) has weighed on year-to-date performance, with the ICE BofA US High Yield Index declining

14.6% through September-end. Notably, performance was spot in-line with the Bloomberg Aggregate which has a much higher quality bias. While this asset class can often behave similarly to equities during market sell-offs, albeit with less downside, we reiterate that total return potential combined with diversification benefits renders this asset class as suitable for client portfolios.

We maintain a bias towards the short duration High Yield universe, as represented by the ICE BofA US High Yield 0-5 Year Constrained Index which carries a 2.7 year duration (compared to 4.4 years for regular High Yield). The chart below reflects three-year forward annualized returns were an investor to own the index at month-end, from December 2006 to present. At September-end, the benchmark's yield-to-worst stood at 10.3%. As indicated in our chart, a favorable risk-reward profile was observed over a multi-year period when purchasing the asset class at similar yield levels. For reference, the Bloomberg Aggregate's September-end yield stood at 4.8%.



Closing Thoughts

Our message remains to stick with thoughtful plans customized to your specific goals and look for long-term opportunities. That does not mean we are passive actors during the current bear market cycle. We are paying close attention to events and continue to challenge our assumptions and investment posture. Ironically, the pain experienced during market declines sets up more attractive future return possibilities. Markets tend to move in unpredictable ways during the best of times and the seemingly random moves are amplified during international conflicts and periods of economic stress. Our job is to get our clients through such periods without jeopardizing their long-term goals, but the current bear market cycle may take a while to play out. In the meantime, please let us know how we can help.

Best regards,

Asa W. Graves VII, CFA
Chief Investment Officer

Jason Fink, PhD
Director of Research

Ash Heatwole, CFA
Portfolio Manager & Associate Director of Wealth Management

DISCLOSURE

Stocks offer long-term growth potential but may fluctuate more and provide less current income than other investments. An investment in the stock market should be made with an understanding of the risks associated with common stocks, including market fluctuations. Stock dividends are not guaranteed. Investments primarily concentrated in one sector may be more volatile than those that diversify across many industry sectors and companies. The technology industry can be significantly affected by obsolescence, short product cycles, falling prices and profits, and competition from new market participants. Global/International investing involves risks not typically associated with US investing, including currency fluctuations, political instability, uncertain economic conditions, different accounting standards, and other risks not associated with domestic investments. Investments in emerging markets may be subject to additional volatility. Stocks of small and mid-cap companies may also be subject to greater risk than that of larger companies because they may lack the management expertise, financial resources, product diversification and competitive strengths to endure adverse economic conditions.

The value of fixed income securities will fluctuate with changes in interest rates, prepayment payment rates, exercise of call provisions, changes in the issuer's credit ratings, market conditions, and other variables such that they may be worth more or less than original cost if sold prior to maturity. There is also a risk that the issuer will be unable to make principal and/or interest payments. Although treasuries are considered free from credit risk they are subject to other types or risks. These risks include interest rate risk, which may cause the underlying value of the bond to fluctuate, and deflation risk, which may cause the principal to decline and treasury securities to underperform traditional securities.

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