

April 13, 2022

Graves Light Lenhart Q2'22 Client Newsletter

Main Points:

- We expect financial markets to remain volatile. Stocks experienced a sharp rebound during the last few weeks of the March '22 quarter but appear to be trapped within a trading range. Fixed income securities continue to experience weak performance due to inflation concerns, which will likely remain for some time.
- Heightened worries over an impending recession have dominated recent news flow. Many investors are concerned about economic aftershocks from the Ukraine/Russia war, especially from rising commodity prices, and an inversion of parts of the U.S. yield curve. We acknowledge that the current environment is incredibly complex, but current inversion signals are not sufficient to trigger recessionary expectation, just caution. Further, yield curve driven recession signals have typically been triggered with a 13-month average lead time. As such, we are intensely focused on current developments but have not made dramatic portfolio changes and don't intend to because of the current fact pattern.
- We intend to maintain our current portfolio positioning, which remains purposely structured to be meaningfully different than popular asset class benchmarks (i.e. S&P 500 and Bloomberg Aggregate Bond Index). Historically, value stocks have experienced superior returns, on average, post yield curve inversions.
- International equities are challenged by the direct impacts of the Ukrainian war. However, current expectations and valuations warrant inclusion within client portfolios, in our opinion. International stocks should be a relative beneficiary if the flight to safety trade in the U.S. dollar reverses.
- We remind our clients of the various merits we posited for non-investment grade fixed income in 2021 (GLLW 2Q21 Newsletter). Wider spread levels, higher yields and favorable corporate fundamentals are driving our increased interest in this asset class. If we begin to add exposure to these fixed income securities we will focus on fund structures, rather than individual securities. These funds can be flexible and judicious in their asset selection, and are biased towards below-benchmark duration, which is our current predisposition as well.



"It's Tough To Make Predictions, Especially About The Future"—Yogi Berra

Going into 2022, we expected the financial markets to experience heightened volatility given the likely friction emanating from the anticipated Federal Reserve's change in monetary policy against many richly valued financial markets. That expectation was fulfilled, though the drivers of the volatility were quite varied. The bond market experienced a weak start to the quarter and was joined by the stock market, as measured by the S&P 500, which fell 10% on a QTD basis through the beginning of Russia's invasion of Ukraine on February 24th. The concomitant pressures of the ensuing sanctions and soaring commodity prices, especially those related to agriculture and energy, further complicated the economic situation. The S&P 500 continued to slide extending the QTD loss to 12.5% through March 8th. However, stocks rebounded smartly through the end of the quarter which still left the S&P 500 with an overall quarterly loss of 4.6%. This decline was closely bracketed by mid-cap and small-cap stocks, while international stocks were down 5.8%, as measured by the EAFE.

Yet, Russian troops are still fighting inside of Ukraine, commodity prices remain high, and consumer incomes are feeling the deleterious effects of inflation. Further, a new COVID strain is resulting in lockdowns in China and spreading within Europe while talk of an impending recession is swirling among the financial cognoscenti. Despite these concerns, the various equity and credit markets appear to be healing but remain very sensitive to news reports regarding the Ukrainian situation and pricing pressures.

Currently, the financial media is heavily promoting a potential yield curve inversion (addressed later in this letter) as a precursor of an impending recession. Historically, equities have experienced significant declines during recessionary environments, with the average peak to through decline exceeding 40%. We appreciate historical economic relationships, and we incorporate such relationships in our portfolio construction and advice. Nevertheless, the current environment is incredibly complex and the most reliable recession signals from the past have yet to be registered. Furthermore, yield curve driven recessions signals have typically been triggered 13 months in advance, on average. As such, we are intensely focused on current developments but have not made dramatic portfolio changes and don't intend to given the current fact pattern.

Economic Overview

While certainly the biggest news of the past quarter was the Russian invasion of Ukraine, inflation continues to be the top economic story. Inflation affects the entirety of participants in the economy, acting as a tax on everyone that holds dollars. One half of the Federal Reserve's "dual mandate" is to maintain price stability in the economy and the current high inflation rate provides direct evidence that the Federal Reserve is failing at that job. Recently, the Fed began the process of raising interest rates to counteract inflationary forces, but inflation is very likely to be affected by events in Ukraine. Though the long run dynamics of this interaction are difficult to discern, the short run effects from the war are highly likely to increase the inflationary pressures the Fed is trying to relieve.



The U.S. inflation rate, as measured by the growth of the Consumer Price Index (CPI) increased by 7% over the entirety of 2021, which accelerated during in the first quarter of 2022. Year-over-year CPI

increases for January, February and March were 7.5%, 7.9% and 8.5%, respectively. These are the highest inflationary readings in 40 years, and discussed the root causes of this inflation in our previous newsletter (GLLW Q122 Newsletter) though the economic situation has been disrupted even further by several recent events.



Covid cases have notably increased in Asia, increasing the risk of further supply chain disruption for manufactured goods. To illustrate the risk, note that almost 19% of U.S. imports come from China alone. China locked down Shanghai, a city of about 26 million people, in the biggest city-wide lockdown since the start of the pandemic. South Korea and Vietnam are other countries with notable spikes in Covid cases.

The war in Ukraine has disrupted exports from both Russia (via substantial sanctions) and Ukraine (quite directly). With 10.5 million barrels/day, Russia is third only to the United States (18.61 million barrels/day) and Saudi Arabia (10.81 million barrels/day) in global oil production. Ukraine represented about 10% of the world export market in wheat in 2021. Prices in the futures markets for WTI crude oil were up 12% and for wheat were up 8% from Russia's invasion of Ukraine on February 24th through the end of the quarter. It is uncertain how long this kind of volatility will persist, but the geopolitical situation is extremely difficult to forecast. Prices of other commodities such as nickel, which is important for the manufacturing of electric vehicle batteries, are also higher as a direct result of the war. All of these disruptions will feed directly into higher inflation rates over the coming months, if not longer.

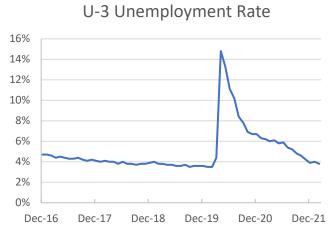
Meanwhile, the U.S. economy during the first quarter of 2022 has remained strong and is expected to remain so throughout 2022, though not as strong as projected prior to the war in Ukraine. For example, EVRISI, an economic consulting firm that provides high quality forecasts, recently reduced their 2022 real GDP estimate to 3%. Of note, 3% annual growth is in line with the historical average growth for the country, but above typical growth for the past 30 years or so.

¹ https://ustr.gov/countries-regions/china-mongolia-taiwan/peoples-republic-china



The unemployment rate for March fell to 3.6%, which is among the lowest levels recorded. This low unemployment rate is extremely important for the forward-looking dynamics of the inflation rate, as it represents the other half of the Federal Reserve's "dual mandate." The Federal Reserve raises interest rates specifically in an attempt to reduce demand in the economy (thus slowing economic activity). Since the labor market is so strong, it both provides room for the Federal Reserve to raise the Federal Funds rate (a key short-term interest rate) and elevates the overall inflation rate by making a primary economic input (labor) more expensive.

A few weeks ago, the Federal Reserve raised the target Federal Funds rate to 0.25% - 0.50%, and is expected to continue raising rates through 2023, until it hits a level of about 3.0%. When the Federal Reserve begins raising interest rates, there is always a risk that they will "overshoot" – raise rates too much and induce a recession. At the moment, there appears to be little recessionary risk on the horizon, but we are only at the beginning of the potential rate increase cycle.



Inversion

One recessionary indicator that has received a lot of attention lately is the shape to the Treasury yield curve. When Treasury rates at the long end of the "curve," (usually proxied by 10-year Treasury rates) are exceeded by the rates at the short end of the curve, it is often an effective predictor of coming recession. In our opinion, there appears to be more hype than substance to these discussions in the popular press at the present time.

Crucially, the appropriate measure of the "short" end of the curve is usually regarded by academics who study this relationship to be either the 3-month or 1-year rate. Currently, both the 3-month and 1-year rates remain substantially below the 10-year rate. The popular press has been reporting on the convergence or inversion of the 2- and 5- year rates with the 10-year Treasury rate, which have historically exhibited less economic forecasting value. Discussions of the inversion of the relevant part of the yield curve are currently premature, in our opinion. Furthermore, yield curve inversions in other countries, such as Australia, have not foretold subsequent recessions, demonstrating that no single economic indicator is foolproof.

Nonetheless, we believe that the slope of the yield curve *is* a prudent metric to keep an eye on going forward. This is in line with the work of Prof. Campbell Harvey at Duke University and a Partner and Senior Advisor of Research Affiliates, LLC. His work, which was confirmed by Federal Reserve researchers, found

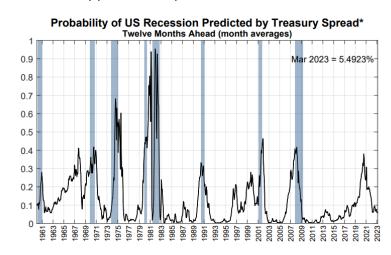
² See https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20220316.pdf for a detailed description, including the Fed "dot plot."

³ See, for example https://www.cnn.com/2022/03/26/economy/inverted-yield-curve-march-warning/index.html or https://www.forbes.com/sites/simonmoore/2022/02/11/the-yield-curve-could-invert-in-2022-heres-why-that-spooks-markets/?sh=6e2b9d8b112c



the most reliable "inversion" signals came from the 10-Year-to-3-month Treasury rate relationship. In the current market this relationship remains upwards sloping, despite the flattening further out on the yield curve. While an inverted yield curve defined this way preceded all post-1960 recessions with a lead time

of slightly more than one-year, not every inverted yield curve preceded a recession, as two such yield curve inversions during the 1960s did not result in recessionary environments within the following 24 months. The Federal Reserve Bank of New York has developed a recessionprediction model derived from Prof. Harvey's work.⁴ Taking the state of the yield curve at the end of the quarter and applying their model yields a 5.49% chance that the economy will be in recession by March 2023.



*Parameters estimated using data from January 1959 to December 2009, recession probabilities predicted using data through Mar 2022. The parameter estimates are α =-0.5333, β =-0.6330.

Updated 03-Apr-2022

We recognize that the world economy faces substantial headwinds in 2022. Virtually all economic forecasts of European economic growth have been reduced, and the negative scenarios now allow for the possibility of recession in Europe later this year. Europe is quite dependent upon Russian oil and natural gas, and so a further disruption of those supplies could negatively affect economic activity there, potentially severely. In Asia, China's COVID-related shutdown of Shanghai, an international financial center and supply-chain hub (Shanghai hosts the world's busiest shipping container port) carries significant economic risks. Furthermore, China's ongoing real estate downturn continues, and presents notable challenges to the People's Bank of China. While the United States' economy appears to currently be on solid economic footing, the struggles of the world's economies represent a potential threat to that enviable position.

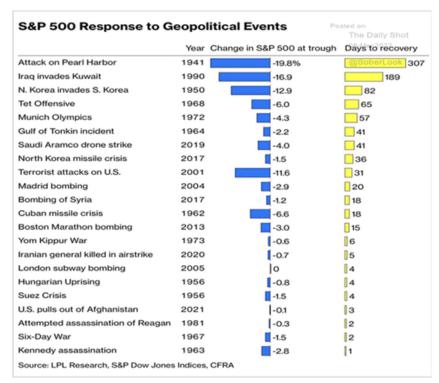
⁴ The New York Fed uses a Probit model based on Estrella and Mishkin (1996). See https://www.newyorkfed.org/medialibrary/media/research/current issues/ci2-7.pdf for a detailed discussion.

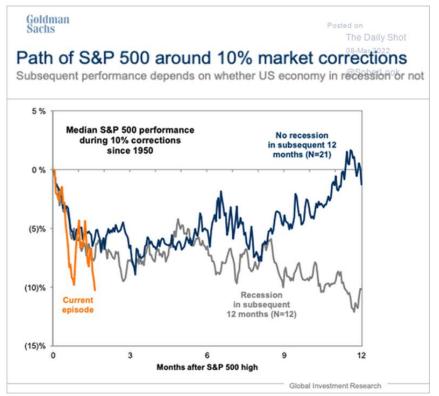


Equity

We believe markets will remain intently focused on developments related to the Russia/Ukraine situation for the foreseeable future. The human aspect is terrible, but the reality is that markets tend to look through armed conflicts and concentrate on the lasting economic impacts. Historically, stocks have absorbed such events with relatively minor dislocations, in line with typical fluctuations. The key driver of future U.S. equity market performance will revolve around when the U.S. economy will experience a recession, which may occur many months into the future.

Given our discussion of the risks associated with inverted yield curves above, it is prudent to review the risks associated with such inversions, should they occur. Prof. Harvery's calculated subsequent market returns following an inversion of the 10vear versus 3-month rates for a full quarter resulted in an average loss in the equity markets of slightly less than 9% over the ensuing twelve-month period; the peak to trough drop was much larger at some point during each twelve-month period. In terms of asset allocation, Prof. Harvery's data show value stocks tend to



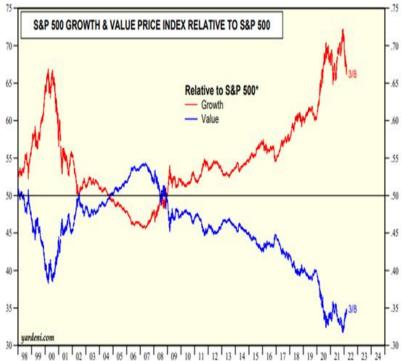


outperform during the initial twelve-months post inversion and have increasingly outperformed over the entire 36- month periods following such inversions.

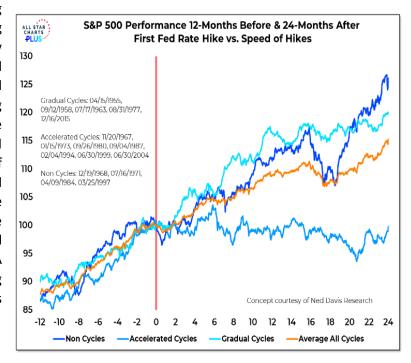


During the March quarter, value stocks were essentially flat with the S&P 500 Value index experiencing a slight -0.2% decline compared to the S&P 500 Growth index's -8.6% decline. Nonetheless, value stocks have suffered substantial relative underperformance since the Great Financial Crisis of 2008. The valuation metrics of the value side of the stock market continue to look attractive relative to growth stocks, especially following the relative price underperformance over the past 14 years.

Since we don't know when a recession will occur, we must "play the cards we have been dealt" and position portfolios relative to known forces. History shows that timing the market is typically a losing strategy because successful timing requires not one but two correctly timed trades in an attempt to avoid market turbulence. The Federal Reserve has initiated a tightening cycle which will continue for the foreseeable future. The Fed will pursue a two-pronged strategy of raising the Federal Funds rate and unwinding the assets they have accumulated over the last decade (which will affect the longer dated portion of the yield curve). prolonged and aggressive tightening cycle will likely pressure equity prices going forward.



Rising (falling) line indicates that the index is outperforming (underperforming) the S&P 500. Source: Standard & Poor's and Haver Analytics.









Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. Guide to the Markets – U.S. Data are as of March 31, 2022.

J.P.Morgan

At this point, we are maintaining our allocation to international stocks, despite the increasing risk of a European recession resulting from both the financial sanctions on Russia and economic disruptions related to the Ukrainian war. Stocks experience more meaningful drawdowns during recessions. However, reasonable valuations and the violence of investors fleeing out of European stocks offers hope that the possibility of unfavorable future outcomes has already been largely priced into the requisite share prices. Furthermore, stocks discount the future and international shares may begin to discount rebounding economic conditions well before such improvement registers in the official economic statistics. It is important to recognize that global equity diversification has proven beneficial over time. Since 1969, the S&P 500 and international stocks have experienced similar periods of superior returns, with the S&P 500 enjoying a slight advantage outperforming international stocks 54% of the time on a

rolling 10-year basis. If nothing else, given the strong performance of U.S. stocks over the past fifteen years, the odds point to an attractive prospective secular environment for international equity investments.

As shown in the table to the right, many segments of the overall equity market are providing more attractive earnings growth prospects while trading at much more attractive valuations than the still popular largecap growth stocks. In particular, we remain focused what we believe to be an attractive long-term opportunity in smaller-cap stocks, despite the heightened volatility such stocks often experience.

		Earnings Growth Estimates			
Index	Forward Price/Earnings	CY 2022	CY 2023	Blended Average	
S&P 500 Growth	24.8x	5.8%	10.1%	8.0%	
S&P 500 Value	16.4x	11.5%	9.4%	10.4%	
S&P Mid-Caps	14.3x	10.8%	8.0%	9.4%	
S&P Small-Caps	13.5x	13.2%	11.5%	12.4%	
International (MSCI EAFE)	13.9x	8.9%	5.9%	7.4%	

*Factset Data as of 04/04/22



Price divided by 52-week forward consensus expected operating earnings per share. Note: Shaded red areas are \$&P \$500 bear market declines of 20% or more. Yellow areas show bull markets Source: LPIXIVS data by Refinitiv.



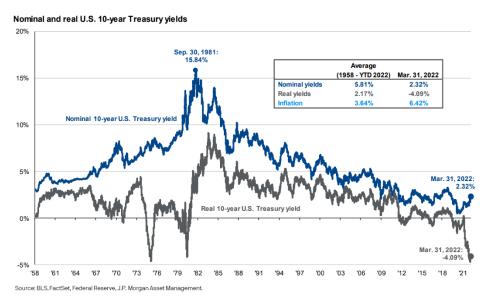
Fixed Income

The recent combination of higher nominal interest rates coupled with increased inflation expectations has provided a challenging environment for most fixed income assets. Market expectations are rising for the Fed to embark upon more aggressive interest rate hikes to rein in inflation. Generally, the more of an investment's value that lies in the future (its duration, in bond terms), the more it will be penalized by rising rates.

As we have highlighted previously, most fixed income assets were poorly positioned at the beginning of the year for the environment which ensued, with both interest rates at historically low levels and heightened rate sensitivity (as measured by duration). Specifically, the Bloomberg US Treasury index declined 5.6% through the first quarter, posting its weakest quarterly performance since the inception of the index in 1973. For high quality securities globally, there were few places to hide over the past six months or so, as illustrated by the following chart.

We have been emphasizing for some time that interest rate increases are long overdue. In recent years, the environment for higher rates has been suppressed by highly interventionalist central bank behavior. As often seen in traded securities, pricing action can move aggressively in both directions, with periods of consolidation followed by erratic moves to higher and lower levels. In the current environment, we anticipate continued unpredictability within fixed income markets as central banks, both domestically and internationally, move away from stimulative policies and shrink their balance sheets in effort to lower inflation.

As the graph on the right illustrates, even with the ongoing adjustment across the US yield curve, real interest rates, which account for inflation, remain deeply negative. This is represented by the grey line which takes the 10year US Treasury rate and reduces this stated yield by the most recent "core" CPI inflation



numbers. Our point is that even if the Fed is successful in lowering inflation without tipping the economy into a recession, the likely path for real interest rates is upward.



In this context, a combination of both higher interest rates as well as wider spreads — which represents compensation for default risk in corporate and municipal bonds — has provided a more

attractive entry point for certain segments of the fixed income market. For example, excluding the distorted, COVID-induced trading which occurred during March 2020, high quality, low duration investment grade corporate bond indicies (as indicated vis-a-vis Bloomberg Corporate benchmarks) are now yielding above 3% for the first time in over 3 years while also providing an entry yield which exceeds duration. Historically, this has proven to be an interesting level to consider purchases. Thematically,

Figure 3. Short Duration Credit: Positive Returns During Fed Rate-Hike Periods

Date	10-Year U.S. Treasury Performance	2-Year U.S. Treasury Performance	Short-Term Corporates	Short-Term High Yield Corporates	Short-Term CMBS	Short-Term ABS
12/15/1986 – 09/04/1987	-6.32%	2.45%	3.12%			
03/28/1988 – 02/24/1989	2.47%	4.13%	5.73%			
02/03/1994 – 02/01/1995	-7.11%	1.16%	1.69%	1.56%		
06/29/1999 – 05/16/2000	-0.25%	2.81%	3.48%	-0.88%	3.75%	4.51%
06/29/2004 - 06/29/2006	1.87%	1.51%	2.42%	7.83%	2.78%	2.89%
12/15/2015 – 12/20/2018	0.33%	0.62%	1.85%	7.70%	1.52%	1.68%
Average	-1.50%	2.11%	3.05%	4.05%	2.68%	3.03%

the table to the right reveals the historical performance for less interest-rate Source: Lord Abbett sensitive parts of the fixed income market during the last six cycles of Fed rate hikes. This underscores our preference for fixed income allocations to represent both higher quality securities and below-benchmark interest rate sensitivity as rates are expected to continue increasing in tandem with hightened volatility.

Lastly, we continue to revisit components of the fixed income market which appear increasingly attractive. Notably, the High Yield market, furnished with the "junk bond" moniker, is becoming more attractive. We remind our clients of the various merits we posited for the asset class in 2021 (GLLW 2Q21 Newsletter). Wider spread levels, higher yields and favorable corporate fundamentals are driving our interest. As we look to increase client portfolio exposure where appropriate, we reiterate our inclination for High Yield allocations to be represented by funds which are judicious in their asset selection, and again, are biased towards below-benchmark duration.

Closing Thoughts

Investing is a difficult business. 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. We are paying close attention to events and continue to challenge our assumptions and investment posture. History shows that the courage to maintain thoughtfully constructed diversified portfolios dramatically increases the odds for successfully reaching financial goals. Thank you for allowing us to help you on your financial journey.

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. The material has been prepared or is distributed solely for information purposes and is not a solicitation or an offer to buy any security or instrument or to participate in any trading strategy. Past performance is not indicative of future results and there is no assurance that any forecasts/targets mentioned in this report will be attained. The indices have been provided for information/comparison purposes only. Individual investors cannot directly invest in an index.