

A Tug of War

After a Very Challenging Year, Investors Face Numerous Cross Winds

It was a losing battle to fight the Fed in 2022. Presently, investors are caught between hawkish central banks, recession fears and war in Europe vs. moderating inflation, bearish positioning, high employment and strong non-government balance sheets. Weighing such factors, we are optimistic, but only within a few select asset classes and securities.

Rockingstone Performance

At the end of every year we examine the firm's performance by strategy. In absolute terms we were roughly in line with most benchmarks, although we note positive alpha generation continues over 3-, 5- and 10-year periods. For 2022, we were correctly under-weight technology and over-weight energy, along with timely short positions. Yet select individual stocks and an over-weight in small caps offset successful sector and market bets.

Earnings And Inflation Are Likely Key For 2023

Bears expect downward revisions to earnings expectations, while bulls (where they exists) are focused on moderating inflation and a GDP soft landing. Asset valuations have compressed markedly; the pace of declining inflation and notably the outlook for corporate earnings should determine asset returns in 2023.

Implications for Portfolios

Starting in late 2022, we increased exposure to non-US assets (ETFs: EUFN, VEA, VGK, VPL) and companies that will benefit from a weaker \$US. We also covered our S&P shorts. We remain over-weight energy and industrials, under-weight technology, while preferring small caps over large caps and international over domestic. Select recent individual stock additions include AZN, BABA, CSTM and WYNN.

S&P500 Forecast & Other Key Indicators

We forecast: EPS (2023: \$213), S&P500 (2023 year end = 3725), GDP (2023: +1.3%), Gold (\$1850), Oil (\$90), 10-yr US Bond Yield (3.3%), Inflation (4%), 5-yr expected CAGR (US Large Cap +2%, US Mid Cap +4%, US Small Cap +8%, Developed +5%, EM +5%).

ABOUT US

Rockingstone Advisors LLC is a boutique asset management and corporate advisory firm co-managed by Brandt Sakakeeny and Eric Katzman, CFA.

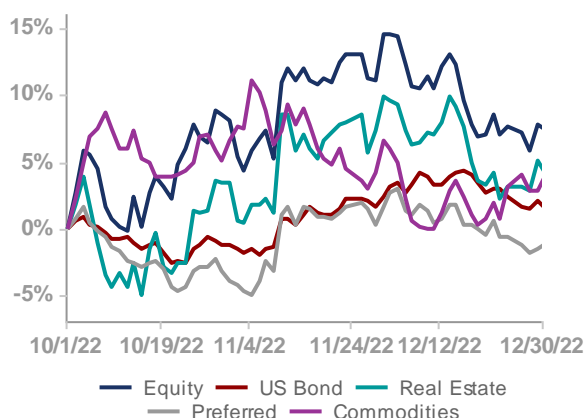
As an SEC-registered investment advisor, we provide multi-asset investment strategies to individuals, families and small institutions through separate accounts.

Our investment strategies attempt to capitalize on pricing inefficiencies across broad asset classes and then across individual securities, with a strong emphasis on fundamental research and analysis.

Thank you for your interest. You can find more information (and some interesting articles) at:

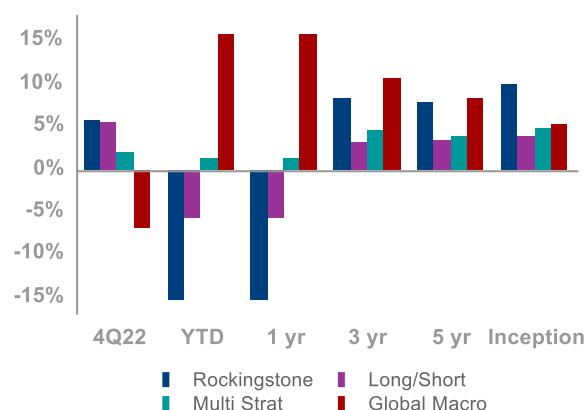
www.rockingstoneadvisors.com

Figure 1: 4Q22 Asset Class Performanceⁱ



Source: FactSet

Figure 2: Rockingstone: 4Q22 & Historical Annualized Returnsⁱⁱ



Source: Rockingstone Advisors, Morningstar, DJ Credit Suisse Indices, Inception = 5/30/2009

Table of Contents

The Razor's Edge	3
Higher interest rates compressed valuations of financial assets. Equity multiples, real estate cap rates and bond spreads have witnessed material re-pricing over the last 12 months. Corporate earnings are now the key.	
Rockingstone's 2022 Performance	5
A Detailed Review of our Strategies and Performance.....	5
Best Ideas	5
Global Equities.....	6
Absolute Return.....	7
Balanced	8
Yield	9
Personalized Portfolios	10
Forecast: 2023.....	12
Rockingstone Advisors: Our Latest Forecasts	12
Five Year Asset Value Forecast	13
For large caps, our analysis points to muted long-term equity returns.....	13
Equity Performance Review	15
Challenging Full Year 2022 Although 4Q Offered Glimmer of Hope	15
Fixed Income Performance Review	16
One of the Worst Years on Record for Fixed Income Investors	16
Commodity Performance Review	17
Mixed Performance Across the Commodity Complex	17
Chart Book.....	18
Leading Indicators.....	18
Real-time Recession Risk Indicators	19
Labor Market Indicators	20
Production and Business Activity Indicators.....	21
Consumer and Household Activity Indicators.....	22
Housing and Construction Indicators.....	23
Price Indicators	24
Valuation Indicators.....	25
Valuation and Volatility Indicators.....	26
Bond Market Indicators	27
Liquidity and Other Indicators	28
Appendix	29
Important Regulatory Disclosures and End Notes	29

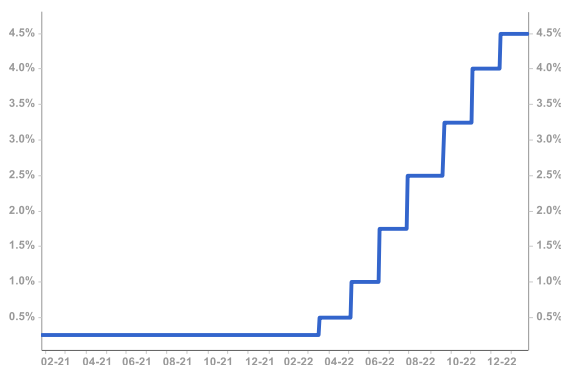
The Razor's Edge

Higher interest rates compressed valuations of financial assets. Equity multiples, real estate cap rates and bond spreads have witnessed material re-pricing over the last 12 months. Corporate earnings are the key.

US Market Overview

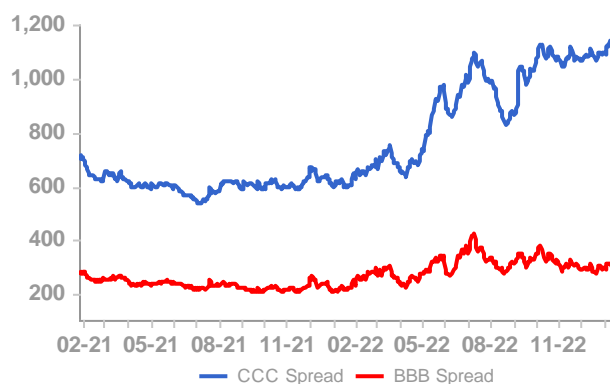
The last 12 months has witnessed a sizeable compression in the valuations of most financial assets. The trigger was the Fed's policy change from interpreting inflation figures as "transitory" to then belatedly recognizing the severity of the threat, raising the Fed Funds rate rapidly, leading to an inverted yield curve and widening credit spreads.

Figure 3: Fed Funds Rates



Source: FactSet

Figure 4: BBB and CCC Bond Spreads



Source: FactSet

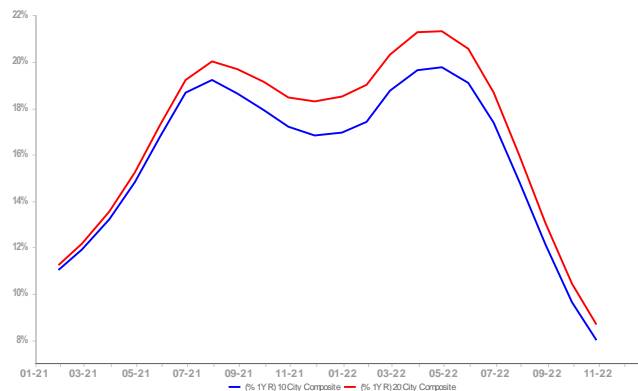
The P/E multiple of the S&P 500 declined from about 22x the next twelve month's earnings forecast to a low of about 15x in early November, which may have marked a bottom in equity prices. It has since risen to just over 17x, slightly above its historical mean, while the Case Schiller Index of real estate prices peaked in the summer of 2022.

Figure 5: P/E Multiple of the S&P 500



Source: FactSet

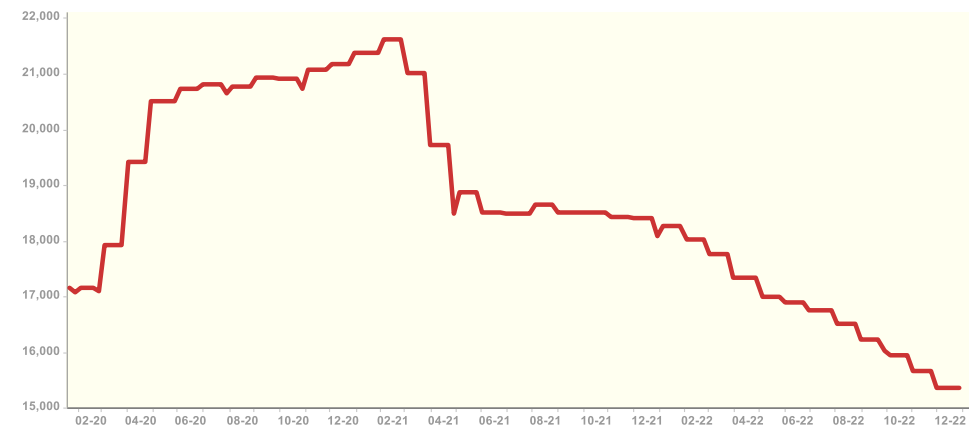
Figure 6: Case Schiller Real Estate Prices



Source: FactSet

The tighter monetary conditions are probably best summed up by the following chart, depicting the rapid decline in the money supply, or M2.

Figure 7: M2 (\$s in billions)



Source: Factset

Higher short-term rates have reduced the money supply, slowed the economy and removed much of the “froth” characterized by excessive speculation. However, with the 2007-08 global financial crisis burned into the memories of the investing public, coupled with the covid pandemic lock-downs, it should not be surprising that slowing economic growth and rising risk of recession, highlighted by an historically inverted yield curve, are assumed to be a harbinger of exceptionally nasty things to come. Such fears include major declines in wealth, job losses, corporate and municipal bankruptcies — the entire panoply of cataclysmic economic events.

But as we have noted before in prior Quarterlies, free market economies are amazingly good at self-correcting, despite obvious policy mistakes by Congress and the Fed. And while historical monetary and fiscal policy tools are not available to policy makers in this specific cycle, non-government balance sheets are well-capitalized and employment is relatively stable given some secular changes in the workforce. Companies seem to be adjusting to slower demand by right-sizing staffing and reducing some non-essential capital spending. With Europe benefitting from a warmer winter and China abandoning its zero-covid policy, there is some renewed expectation that US companies may be able to weather a slowdown in domestic demand by seeing improving demand overseas.

Corporate Earnings

In our view, the key variable for 2023 will be corporate earnings. Currently, the consensus forecast for the S&P 500 is \$224, down from a forecast of \$246 back in March of 2022. If the S&P 500 constituents earn \$224, that would imply a 12% increase in earnings per share from 2022, which appears to be roughly \$200. As we do not contemplate a material change in valuation (the P/E multiple), the equity market’s success is highly likely to depend primarily on corporate earnings meeting expectations.

If the S&P can eke out a gain of low double-digit earnings growth in 2023 with a stable outlook in 2024, we believe the S&P can deliver low single digit returns. While our current forecast is a bit more cautious on 2023 earnings and thus less sanguine about the near-term return for the S&P 500, there are other asset classes and individual securities that potentially offer more attractive return opportunities.

Rockingstone's 2022 Performance

A Detailed Review of our Strategies and Performance

At the end of each calendar year, we review our individual portfolio strategies and relative performance. Rockingstone does not manage a fund where all our investors are pooled into a single portfolio. Rather, we manage “separate accounts,” meaning each account is customized to the individual needs of the client, based on his or her benchmark. In turn, the benchmarks used are broadly founded on six distinct strategies:

- **Best Ideas** (an all-equity portfolio typically benchmarked against the S&P 500);
- **Global Equities** (a global equity portfolio typically benchmarked against the MSCI All-World index);
- **Absolute Return** (a portfolio where we will be more actively short albeit with a long bias-- in attempting to achieve 6-8% annual returns with less volatility-- than in our more aggressive strategies);
- **Balanced** (a broad-based portfolio comprised of equities, preferreds, real estate and debt, typically benchmarked against a retirement date fund or balanced mutual fund);
- **Yield** (a portfolio where we attempt to generate 4-6% annual income without material interest rate risk);
- **Personalized Portfolios** (portfolios constructed to meet a specific client need or requirement such as no mining stocks or no high carbon energy investments).

Lastly, we note the portfolio management statistics detailed for each strategy are relative to that specific strategy's benchmark. For example, in our “Global Equities” portfolios we use the alpha and beta figures relative to the MSCI-ACWI.

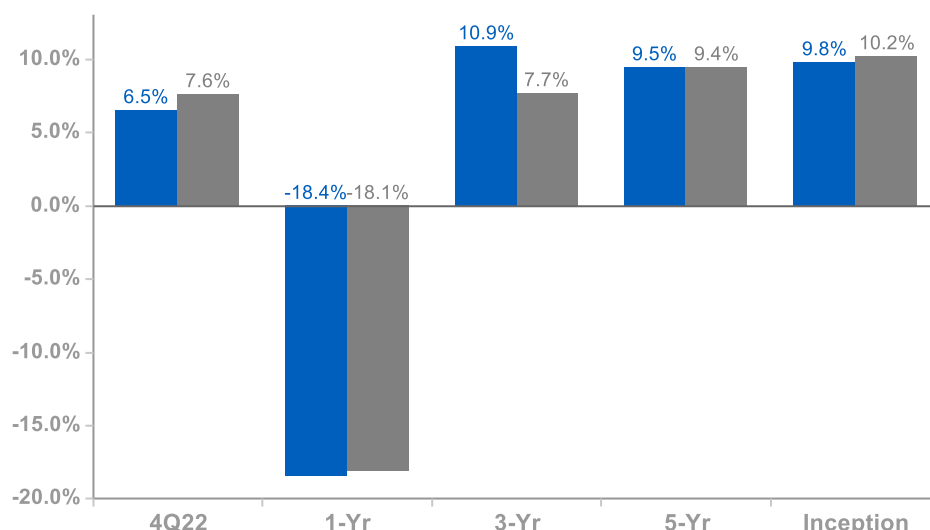
Best Ideas

Our “Best Ideas” portfolios use the S&P 500 as a benchmark. The S&P 500 is a 100% US-based market-cap weighted index, therefore with an inherent bias towards large-cap companies. Until last year, simply owning the S&P 500 with its heavy weighting of tech giants had been a highly effective and value generating approach. Yet 2022 saw a rotation away from tech-related and growth-biased equities into value-oriented shares.

During 2022 in absolute terms, we performed roughly in line with the S&P. On the positive side of the ledger, we were underweight growth stocks— and technology stocks in particular— due in part to our equal-weight approach of holding 40-50 positions, combined with a risk management philosophy of limiting any one stock position to not exceed a 4% weighting, which serves to underweight the largest members of the index. We were also underweight consumer cyclicals and overweight energy, defensives and industrials. We maintained a short on the S&P 500, which aided performance as well.

Offsetting favorable sector weights and under-weights on the index, we maintained positions in a few small cap stocks and in a few international stocks that together underperformed the S&P 500, offsetting the favorable sector bets and the short position.

Figure 8: RSA “Best Ideas” (Blue) vs. S&P500 (Gray) Portfolio Performance



Source: Rockingstone Advisors, Morningstar Office, Inception = 1/1/2015.

The 3-year and 5-year beta for our “Best Ideas” portfolio is 0.86 and 0.90, respectively, which implies that we have roughly matched the S&P 500 over those time periods yet with only 85-90% of the risk. This resulted in significant alpha generation of 4.61 over the last three years and 1.63 over the last five years. As a reminder, “alpha” is used to measure the excess return created by a portfolio manager above whatever return is generated by the market / benchmark.

Although our approach is generally to hold a roughly equal weight of ETFs and individual stocks, our “Best Ideas” portfolios often have a greater exposure to the latter. At the end of 2022, our top five individual stock investments include: (1) Canadian Natural Resources, (2) Linde, (3) Berkshire Hathaway, (4) Apple, (5) Microsoft. Meanwhile our top 5 ETFs included: (1) XLV – Healthcare, (2) XLK – Technology, (3) IWM – Russell 2000, (4) IGV – Software.

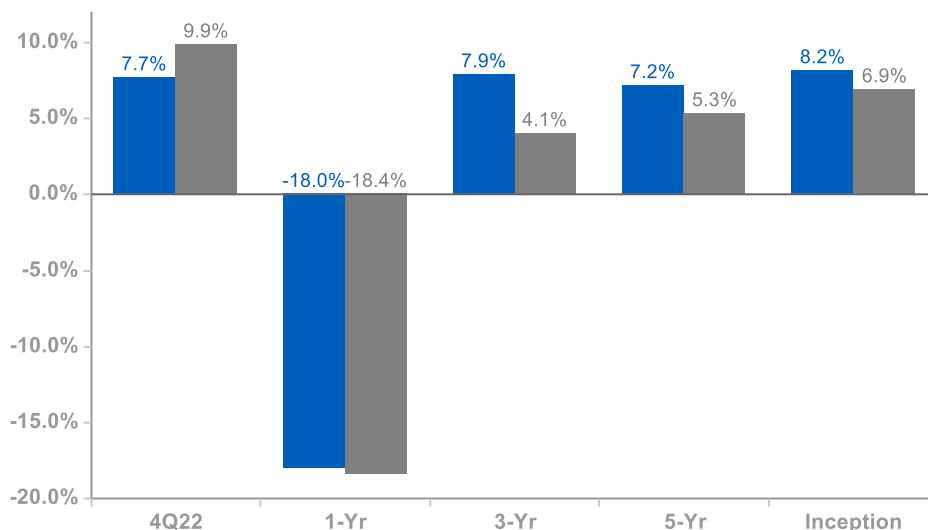
Global Equities

Our “Global Equities” portfolios use the MSCI All-Country World Index (ACWI) as a benchmark. The MSCI-ACWI uses a non-US stock weighting of approximately 40%. Specifically, the geographic exposure includes 19% Europe, 18% Asia and 63% Americas.

Rockingstone’s portfolios slightly out-performed the ACWI in 2022 as our over-weight to US markets, given the very strong \$US, helped results vs. the benchmark. We also note select shorts aided performance along with being under-weight tech and over-weight energy. Offsetting favorable geographic allocations were unfavorable capitalization allocations (small cap exposure) and the performance of a few select stocks.

We note the 3- and 5-year beta for our “Global Equities” portfolio is 0.87 and 0.89, respectively. This suggests our portfolios have about 85-90% of the risk of holding the MSCI-ACWI alone. Therefore, our alpha generation over the last three years and five years has been 4.85 and 2.98, respectively.

Figure 9: RSA “Global Equity” (Blue) vs. Benchmark MSCI-ACWI (Gray) Portfolio Performance



Source: Rockingstone Advisors, Morningstar Office, Inception = 1/2/2015.

Historically we have held greater ETF exposure in our “global equity” portfolios as compared to the “best ideas” portfolio. At the of 2022, our top five individual stock investments included: (1) Apple, (2) Microsoft, (3) Berkshire Hathaway (4) Linde, (5) Canadian Natural Resources. Meanwhile our top 5 ETFs included: (1) VEA – Developed Markets, (2), XLV – Healthcare, (3) IWM – Russell 2000, (4) VWO – Emerging Markets, (5) VGK – Europe.

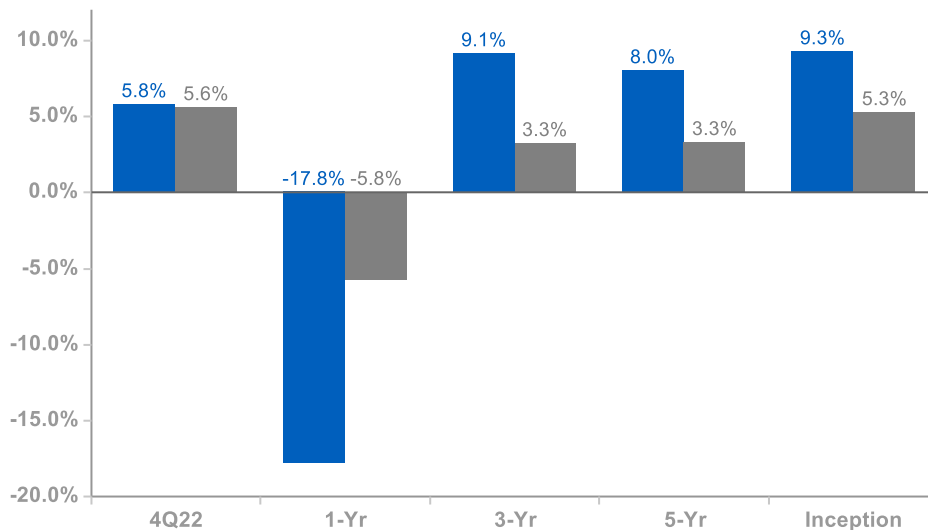
Absolute Return

Our “Absolute Return” portfolios use the Credit Suisse Multi-Strategy Index as the primary benchmark. We use an unconstrained strategy to generate the highest, risk-adjusted return possible. For example, in the “Absolute Return” strategy we may short more aggressively or have greater exposure to commodities or potentially use options to enhance returns.

That said, because we believe stocks generally go up over the long term, our bias is to be long and to use shorts selectively to manage through events we believe may lead to a sustained period of equity declines. Given that we manage individual accounts with restrictive margin allowances, we cannot hedge to the same extent assumed within the CS Hedge Fund indices. This in part explains the significant under-performance in 2022 vs. the benchmark; conversely, it also helps partially to explain our long-term outperformance.

At the end of last year our allocation reflected the following: 68% US stocks, 14% non-US stocks, 18% other (mostly cash). Using our Morningstar portfolio software, we note the 3, 5 and 10-year beta for our “absolute return” portfolio has been 1.26, 1.40 and 1.39, respectively. Thus, it isn’t too surprising to see our volatility measure relatively high. Importantly, we emphasize that even with the high beta, our alpha generation has been solid: 3-year = 5.05, 5-year = 4.36, 10-year = 3.06.

Figure 10: RSA “Absolute Return” (Blue) vs. CS Multi-Strategy (Gray)



Source: Rockingstone Advisors, Morningstar Office, Inception = 5/30/2009.

Our top 5 individual stock investments at the end of 2022 included: (1) Apple, (2) Berkshire Hathaway, (3) S&P Global, (4) Linde, (5) Intuitive Surgical. The top 5 ETFs included: (1) SPY – S&P500, (2) XLV – Health Care, (3) VEA – Vanguard Developed Markets, (4) IWM – Russell 2000, (5) PHO – Invesco Water Resources.

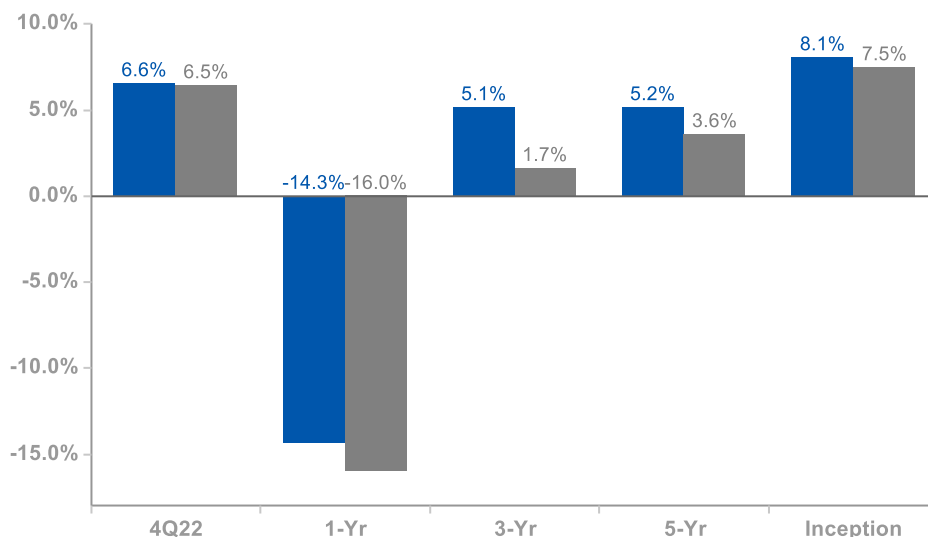
Balanced

Our “balanced” portfolios include a combination of global equities, fixed income and hybrids. For comparison purposes, the key benchmark we use for clients is the Vanguard LifeStrategy Moderate Growth Fund (VSMGX). VSMGX has an allocation of 36% US stocks, 24% non-US Stocks, 37% bonds and 3% cash.

As in prior years, we were over-weight US stocks and under-weight bonds as well as non-US stocks vs. the benchmark in 2022. However, as last year came to a close, we boosted exposure to non-US equities while keeping bond positions low. We maintained our short in European fixed income, but raised our exposure to emerging markets bonds.

It is worth noting that for decades, the “balanced” portfolio (i.e. a 60/40 equity/fixed income split) had been viewed as the appropriate mix for a conservative investing approach. Yet with inflation, hawkish central banks and fears of recession, “balanced” investors were caught by surprise in 2022.

Figure 11: RSA “Balanced” (Blue) vs. Benchmark Vanguard Life Strategy (Gray) Portfolio Perf.



Source: Rockingstone Advisors, Morningstar Office, Inception = 6/1/2009.

We note Rockingstone’s relative out-performance over the last 3-, 5- and 10-years was achieved with lower portfolio risk than the benchmark. During those time periods the “balanced” portfolios had a beta of 0.88, 0.93, and 0.96, respectively. In terms of alpha generation, we note the following statistics: 3-year = 4.11, 5-year = 2.28 and 10- year 1.96.

At the end of 2022, our top 5 individual stock investments included: (1) New Mountain Finance Corp, (2) Apple, (3) Canadian Natural Resources, (4) Microsoft, (5) Berkshire Hathaway. Meanwhile our top 5 ETFs included: (1) PFF – Preferreds, (2) JPST – JP Morgan Ultra-Short Income, (3) JPIE – JP Morgan Income, (4) XLV – Health Care Select, (5) SPY – S&P500.

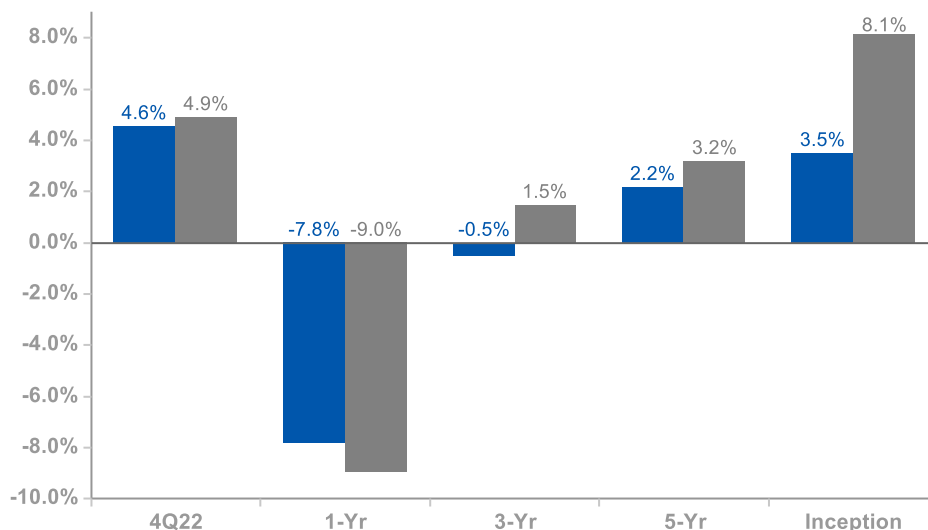
Yield

For retirement accounts and those investors interested in generating income, we construct portfolios using a combination of high dividend yielding stocks and ETFs, select bond ETFs as well as hybrid ETFs. Our goal with these portfolios is to generate an absolute annual return of 4-6%, with the bulk of that return coming from dividends / income.

Clearly the investing environment changed dramatically in 2022 with higher inflation, a hawkish Federal Reserve, an inverted yield curve and pervasive investor pessimism. Historically our strategy has been to avoid “expensive” bonds while being over-weight financials, the latter sector that should benefit from higher interest rates and a positively sloping yield curve.

Unfortunately, 2022 was a tough year for the “yield” strategy. We owned more floating rate bonds, but these failed to rise in value, as the spread deterioration offset the higher rates. Portfolios held preferreds, which struggled due to their perpetual duration even though preferreds are largely backed by well capitalized financials. As yields moved higher in 2022, we bought select CDs and individual bonds with durations of a few months to a few years.

Figure 12: RSA “Yield” (Blue) vs. Simple Global Yield Benchmark (Gray) Portfolio Performance



Source: Rockingstone Advisors, Morningstar Office, Inception = 12/27/2011.

We acknowledge the “yield” strategy has not met its 4-6% annual return goals and note the following portfolio statistics: Beta (3-year 0.91, 5-year 0.99, 10-year 1.02), Alpha (3-year -1.61, 5-year -0.65, 10-year -1.60).

Our top five liquid holdings at the end of 2022 included: (1) JPST – Ultra Short Income, (2) NMFC – New Mountain Finance Corp, (3) FLRN – Investment Grade Floating Rate Notes, (4) JPEM – JP Morgan Equity Premium Income, and (5) SPY – S&P 500.

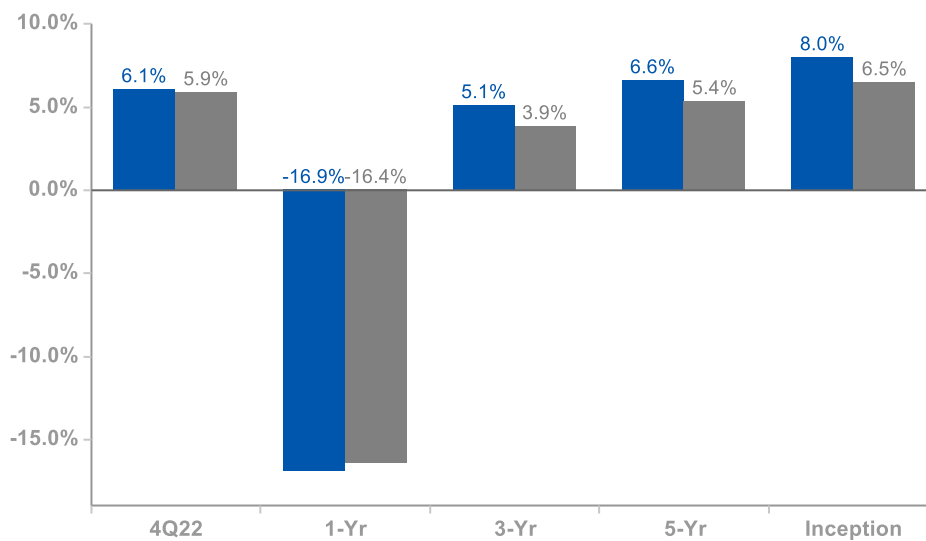
Personalized Portfolios

Because Rockingstone manages individual portfolios, there are occasions where a particular client may want to exclude certain securities. For example, a client may want to exclude mining or hydro-carbon intensive businesses, or conversely, green-related industries. Alternatively, we may manage a portfolio for a client that has inherited a significant amount of a particular stock with a low tax basis and thus need to consider that over-weight position and the tax consequences to a greater degree than other clients.

As a result, we emphasize the “Personalized Portfolios” as a group is less indicative of performance vs. one particular benchmark. Nevertheless, at this point we have used the Impax Sustainable Allocation Fund (PAXWX) to reflect one client’s preference for portfolios not holding any carbon intensive individual stocks. The benchmark is a balanced fund, i.e. it includes US stocks (49% weighting), non-US stocks (10%) as well as bonds (37%) and cash (4%). Similar to other strategies, we use both ETFs and individual stocks to construct the portfolio.

Using our Morningstar portfolio software, we note the 3- and 5-year beta for these portfolios has been 1.15 and 1.20 respectively. This indicates there is 15-20% more volatility in our current personalized portfolios vs. the benchmark. This is a function of holding significantly less bond exposure than the benchmark as well as our general belief that bonds have been and continue to be an expensive asset class. Alpha generation has been modestly positive including 0.98 for the last 3-years and 0.65 for 5-years.

Figure 13: RSA “Personalized Portfolios” (Blue) vs. Sustainable Allocation (Gray) Performance



Source: Rockingstone Advisors, Morningstar Office, Inception = 10/20/2016.

Our top 5 individual stock investments at 2022-end included: (1) Costco, (2) Estee Lauder, (3) McCormick, (4) Apple, (5) S&P Global. Meanwhile our top 5 ETFs included: (1) KLD – MSCI Social 400, (2) SPYX – S&P500 excluding Fossil Fuels, (3) XLK – Technology, (4) VYM – Vanguard High Dividend Yield, (5) VT – Vanguard Total World Market Index.

NB: We note portfolio analytics generated by our Morningstar software, specifically alpha and beta referenced in the above section, are based off of gross return calculations.

Forecast: 2023

Rockingstone Advisors: Our Latest Forecasts

We have updated our estimates for key macroeconomic indicators, but similar to most forecasters, find 2023 to be particularly difficult. There continues to be a significant difference between real and nominal figures, which has not been the case for the last few decades. In the case of GDP, we forecast real growth. Alternatively, other assets, such as the 10-Yr US Treasury, for example, we predict in nominal terms. For investors, deciphering how markets react to such stark differences will be another important factor.

Figure 14: Key Metric Forecast

Metric	Year End December	
	Band	Point
US Real GDP (2023)	+0.5% to +1.5%	1.3%
S&P 500 2023 EPS (RSA/Street)	NA	\$213 / \$224
S&P 500 2023 Index	3500-4050	3725
10-Yr US Treasury Yield	3.0% - 3.5%	3.3%
Oil (WTI-2023 End)	\$80 - \$100	\$90
Gold (2023 End)	\$1,750 - \$1,950	\$1,850
Inflation (PCE - NTM)	+3.5% to +4.5%	4.0%

Source: Rockingstone Advisors, The Economist, Standard and Poor's, NYSE Arca, St. Louis Federal Reserve

A few observations and comments:

1. S&P 500 2023 EPS. It appears that 2022 final EPS will be about \$200. The interesting question is whether the consensus forecast for 2023 EPS of \$224 (implying 12% growth) is reasonable? While 4% of the growth is attributable to share repurchases alone, that implies 8% nominal earnings growth, in an environment where sales growth is difficult to generate. For this reason, we are more comfortable with an outlook of 6-7% year over year earnings growth, which would imply an EPS forecast of \$213. While sales growth for large cap companies will likely benefit from pricing and currency, margin pressure (input cost from commodities to wages, lingering supply chain inefficiencies) is likely to be an offset.
2. S&P500 2023 Index. Our updated S&P 500 Index year-end target is 3725, implying mid-single digit negative returns from current / mid-January 2023 levels. As noted above, we start out at least vs. consensus with a more cautious view on EPS. Compared to our prior forecast, interest rates have fallen precipitously, with the US 10-year dropping from 4.1% in October 2022 to its current level of 3.4%. Assuming rates don't change too much from current levels, we believe using a 17.5x P/E multiple is reasonable. This implies an S&P 500 Index target of 3725. However, we are using a broader range as myriad swing factors could drive the index lower.
3. Inflation. We see inflation, as measured by the PCE, which is the US Federal Reserve's primary index, as increasing about 4% throughout the year. Inputs that continue to show price pressure include wages, healthcare and other services, while a number of components such as rents, used cars, and select commodities are likely to witness price declines in 2023.

Five Year Asset Value Forecastⁱⁱⁱ

For large caps, our analysis points to muted returns in long-term equity

Our main assumptions regarding capital markets are that asset values mean-revert (with respect to margins and P/E multiples) over time. We see no reason to question this axiom. We note it currently makes for more volatility in expected returns, particularly when low profitability is factored into our calculus. We analyze equities using four variables, including (i) historical sales growth, (ii) corporate profit margins, (iii) dividend yields, and (iv) valuation to determine potential long-term returns. Using valuation as an example, P/Es should theoretically decline (if currently above the historical mean) or expand (if currently below the historical mean) over the long term.

As usual based on our outlook for total returns, we expect the “give” of sales growth, valuation and dividends to be partly offset by the “take” of mean-reverting margins. We expect sales growth to be relatively close to long term average performance, although how a potential recession vs. pass through pricing impacts top line results is unclear. Profit margins are back above historical levels, so they are now dilutive to expected returns.

Based on our most recent analysis, US large cap stocks appear to offer the lowest long-term return potential from current levels looking out over the next 5 years based on margin pressure and valuation / multiple contraction. The remaining equity indices we forecast offer more reasonable returns. In general profit margins appear set to be a drag across returns, sales are broadly incremental as are yields although valuation is a mixed picture.

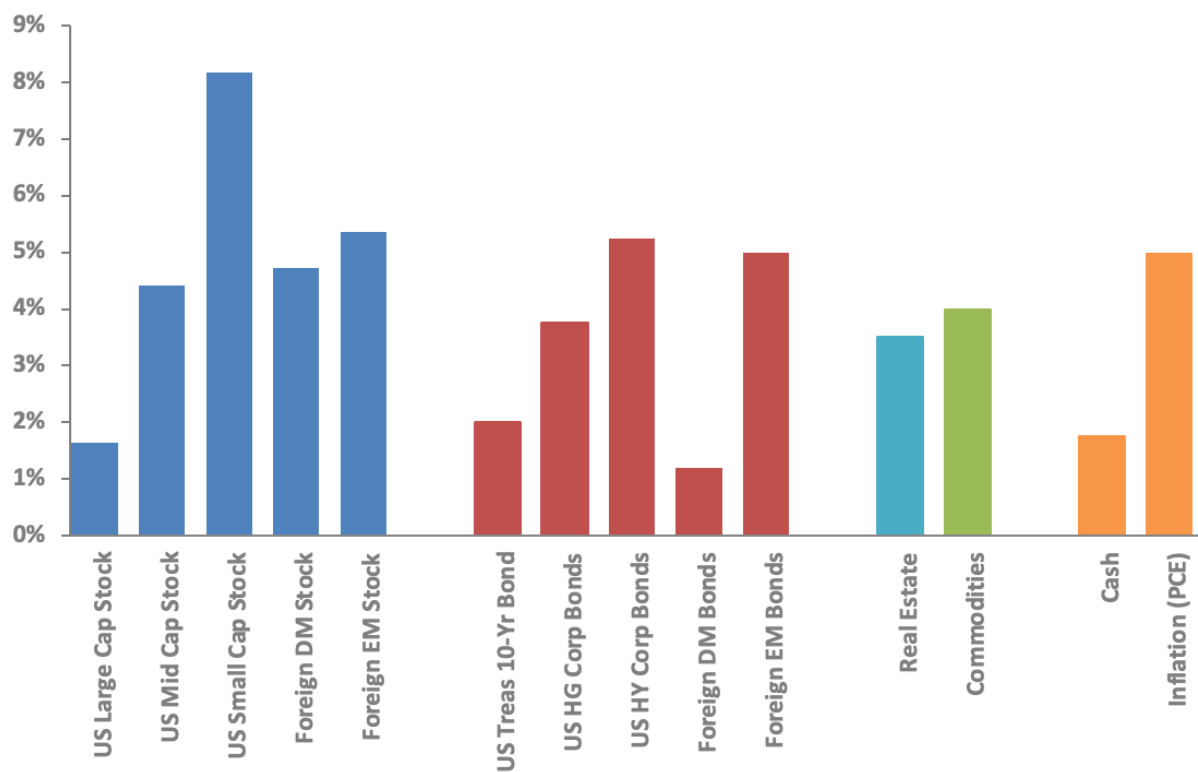
Figure 15: Five-Year Total Equity Return Calculations (Incremental Contribution)

Asset	Index	LT Exp. Return		Sales		Profit Margin		Div.Yield		Valuation
US Large Cap Stock	S&P500	1.6%	=	5.1%	-	2.6%	+	1.7%	-	2.6%
US Mid Cap Stock	S&P400	4.4%	=	4.8%	-	5.0%	+	1.8%	+	2.8%
US Small Cap Stock	S&P600	8.2%	=	6.4%	-	3.4%	+	2.1%	+	3.1%
Foreign DM Stock	MSCI-EAFE	4.7%	=	1.2%	-	3.6%	+	3.7%	+	3.4%
Foreign EM Stock	MSCI-EM	5.4%	=	5.0%	-	1.6%	+	3.0%	-	1.0%

Source: Rockingstone Advisors

In fixed income (see the next page for various assumptions), we expect the “give” of coupons will be exceeded by the “take” of mean-reverting inflation and real rates, both of which are below their historical mean. Indeed, rates have moved up materially in the last quarter as markets start to factor in Fed activity and inflation. Of course, short-term returns may not necessarily match our longer-term return predictions; markets are significantly more random over the short-run than the long-run.

Figure 16: Five-Year Asset Class Total Return Forecast



Source: Rockingstone Advisors

Equity Performance Review

Challenging Full Year 2022 Although 4Q Offered Glimmer of Hope

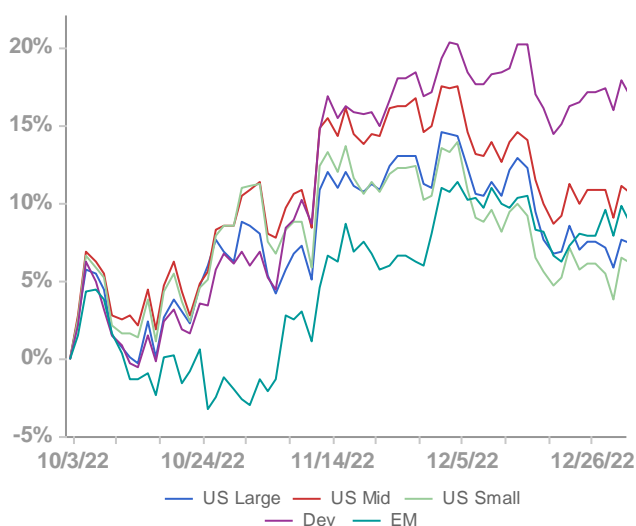
Equities performed poorly in 2022, with the S&P500 recording an -18.1% decline. Performance across foreign and emerging markets was similarly abysmal. Although equity markets tried to stage a few relief rallies amidst the onslaught, almost every economic sector (except for energy) posted declines during the year.

Investors began the year 2022 with some optimism, but it was short-lived as the Federal Reserve realized the extent of its policy error, and rapidly changed its view that inflation would only be transitory. With Central Banks around the globe raising rates, equities quickly fell under pressure. This decline was exacerbated by the war in Ukraine, which added escalation risk as well as inflationary risk, especially to Europe equities. As 2022 progressed, and interest rates continued to rise, investors mostly feared out of control inflation and the specter of recession.

After a rough 1H22 for equity returns, bullish investors played a game of chicken with the Federal Reserve by focusing on moderating inflation and expectations that Central Banks might moderate interest rate increases, despite their lip-service to the contrary. During the second half of the year, the market staged several relief rallies, only to have a Federal Reserve member or Chair Powell remind investors that inflation remained a concern and the need for higher interest rates (“for longer”) would remain in place.

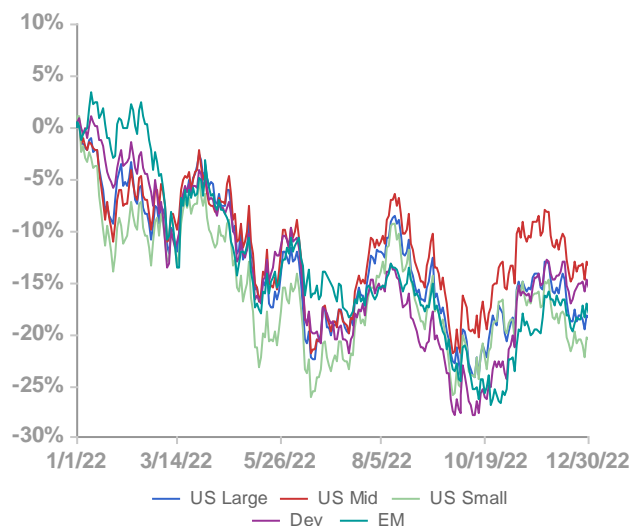
We note the following performance regarding 4Q22 and 12M22, respectively, results: US large-cap (+7.6% and -18.1%), US mid-cap (+9.0% and -18.7%), US small-cap (+6.2% and -20.5%), Developed (+16.8% and -15.4%), Emerging (+8.6% and -17.9%).

Figure 17: 4Q22 Equity Performance ^{iv}



Source: FactSet

Figure 18: 12M22 Equity Performance



Source: FactSet

Fixed Income Performance Review

One of the Worst Years on Record for Fixed Income Investors

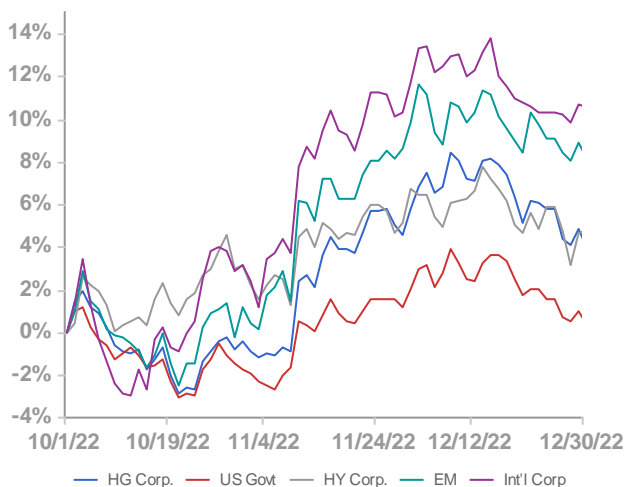
For investors with the classic “balanced” strategy of a 60/40 portfolio (i.e. 60% equities and 40% bonds) or for more risk averse individuals with an even greater percentage of their portfolio in fixed income, 2022 was an extremely challenging year. With the 10-year bond yield at slightly over 1% in Dec 2021, in retrospect it was not surprising to see losses across fixed income securities as Federal Reserve actions and inflation pushed that same yield to well over 4% during 2022. Bond prices are inversely related to yield and thus the Federal Reserve’s actions resulted in significant losses.

While the FOMC controls the short end of the yield curve, many factors— from inflation to economic activity— impact the long end. As the Federal Reserve decided to rapidly increase interest rates on the short end in order to get control over inflation, long term bond yields did not follow suit. As a result, 2022 ended with the slope of the yield curve (i.e. the 10 year yield minus the 2 year yield) at its most inverted in decades. While not always the case, many economists believe such yield curve inversion signal recession ahead.

The combination of rising short term yields, inflation and wariness over recession drove a widening in bond spreads (i.e. the interest rate above the risk-free rate offered by US government bonds), especially in lower quality bonds. This in turn led to losses across fixed income instruments, including corporates, high yield offerings and preferreds. For non-US bonds, the same dynamics were true, only made worse by the very strong \$US.

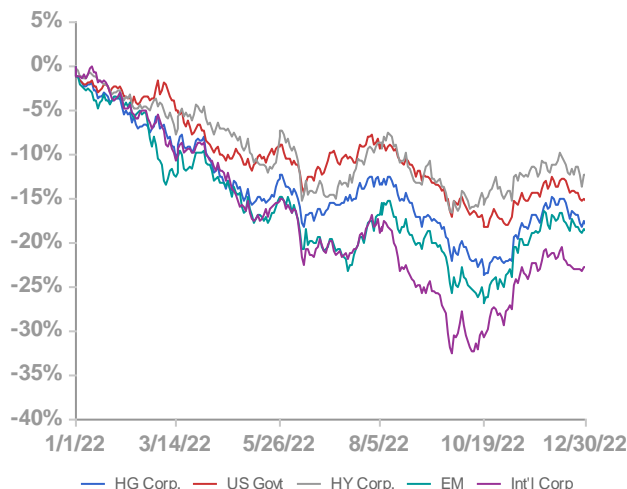
We focus on the following performance numbers for 4Q22 and 12M22, respectively: US High Grades (-4.2% and -17.8%), US Governments (+0.6% and -15.1%), US High Yield (+4.8% and -12.1%), International Developed (+0.2% and -12.7%), Emerging Markets (+8.3% and -18.5%).

Figure 19: 4Q22 Fixed Income Performance^v



Source: FactSet

Figure 20: 12M22 Fixed Income Performance



Source: FactSet

Commodity Performance Review

Mixed Performance Across the Commodity Complex

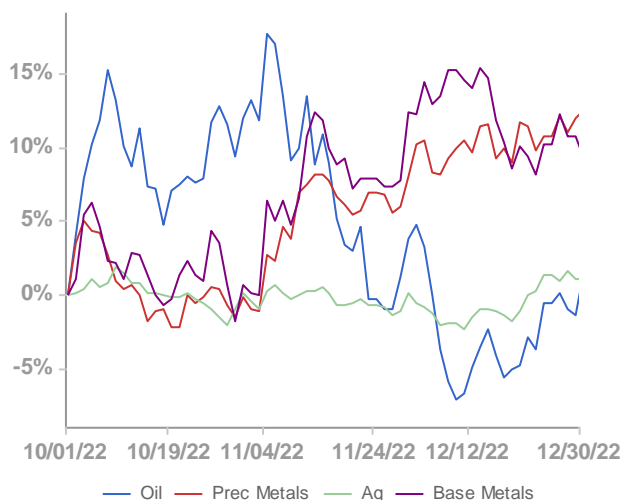
With so many economic cross-currents in 2022, it is not surprising to see the commodity complex as recording widely disparate results. Segments of the commodity complex, such as energy or copper, for instance, often reflect expectations around economic activity. This is in contrast to gold, for example, which is historically viewed as an inflation hedge and/or an ultrasafe investment, with a 2,000-plus year history of retaining its value.

As we noted in previous quarterly newsletters, the Ukraine war led to global concerns over both the energy and agriculture complex. Indeed, oil (as measured by the ETF DBO) was up 13.0% in 2022 and XLE (the broad based energy ETF) was up 63.4%. Another interesting dynamic in 2022 was the lack of change in gold prices, with GLD down 0.8% despite high inflation! To the extent crypto-currencies were viewed as a better hedge, gold was left behind by investors for much of the year. However, with the collapse of FTX and drop in most crypto assets, it is worth noting that GLD jumped 9.7% in 4Q22.

Taking a step back, we emphasize investors should normally expect greater volatility in commodity prices relative to equities or bonds. This is because unlike stocks and bonds, commodities do not generate a stream of cash flows that can be discounted back to present value. Commodities are also frequently susceptible to sudden supply and demand shocks impacting their price. Lastly, because commodities are most often priced in \$US and traded globally, they are considered a store of value, especially if the dollar declines.

Rockingstone typically invest in commodities via ETFs and the below graphs display what we view as representative performance for the underlying commodities. We highlight the following returns during the 4Q22 and 12M22, respectively: Oil (+0.9% and +13.0%), Precious Metals (+12.5% and -1.5%), Agriculture (+1.1% and +2.5%), Base Metals (+9.7% and -11.8%).

Figure 21: 4Q22 Commodity Performance^{vi}



Source: FactSet

Figure 22: 12M22 Commodity Performance

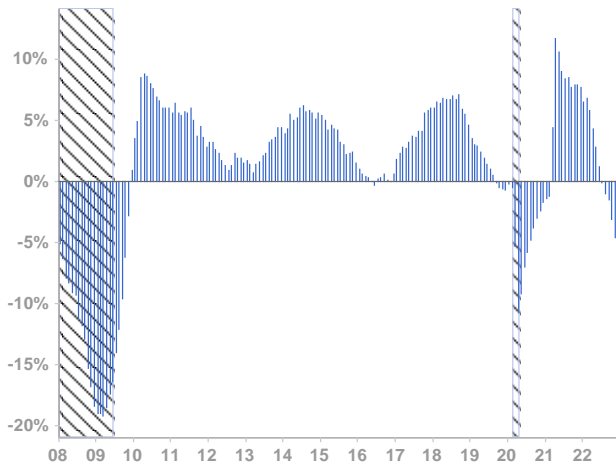


Source: FactSet

Chart Book

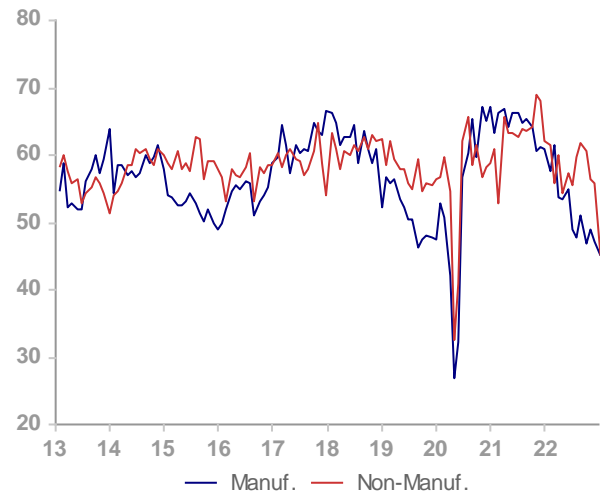
Leading Indicators

Figure 23: Index of Leading Economic Indicators



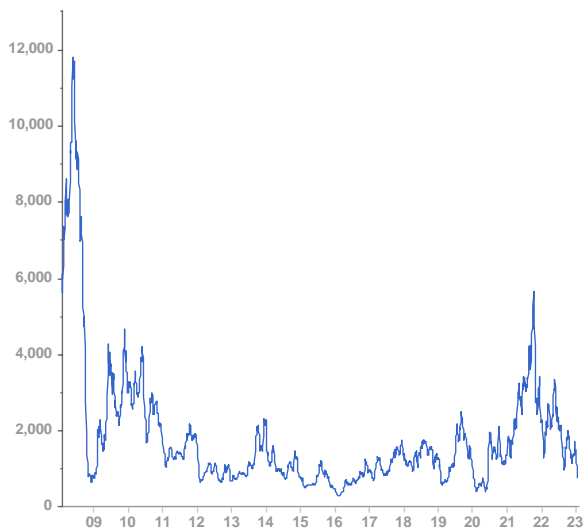
Source: FactSet

Figure 24: ISM New Orders



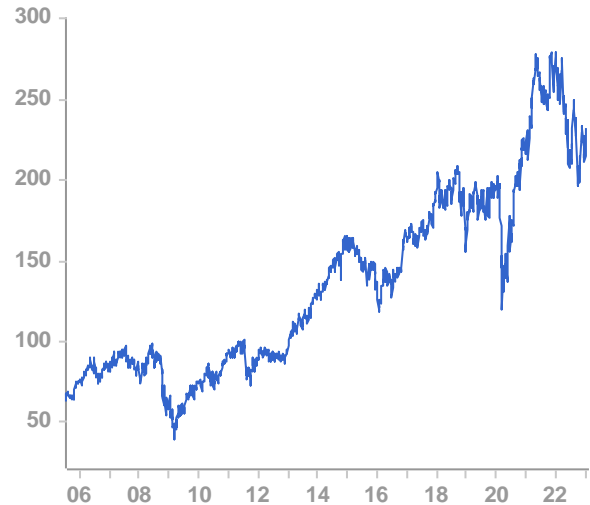
Source: St. Louis Federal Reserve, FRED Database

Figure 25: Baltic Freight Index



Source: FactSet

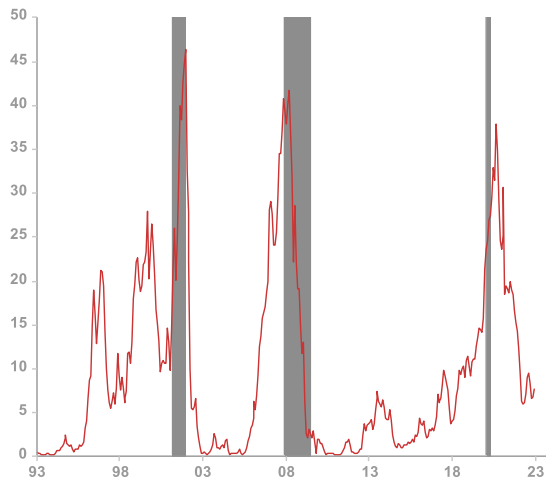
Figure 26: DJ Transports



Source: FactSet

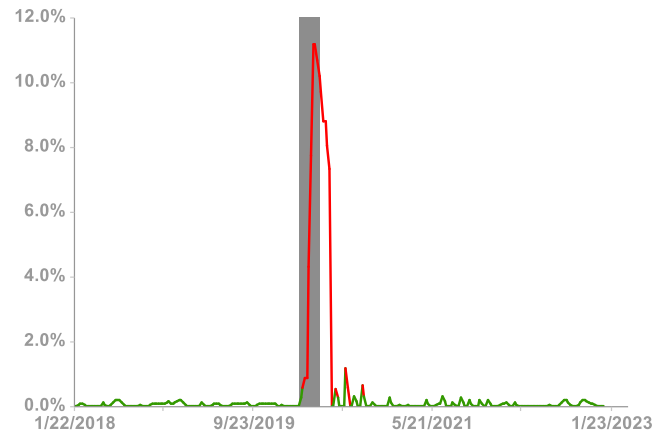
Real-time Recession Risk Indicators

Figure 27: Treasury Spread Recession Predictor



Source: FactSet, FRED Database

Figure 28: Sahm Real-time Recession Predictor



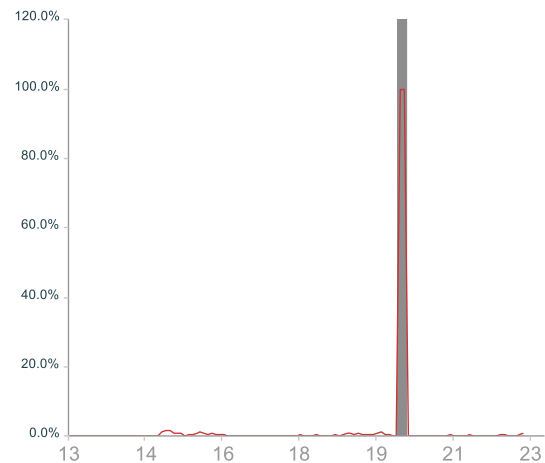
Source: St. Louis Federal Reserve, FRED Database

Figure 29: GDP Now (Atlanta Fed)



Source: FactSet, FRED Database

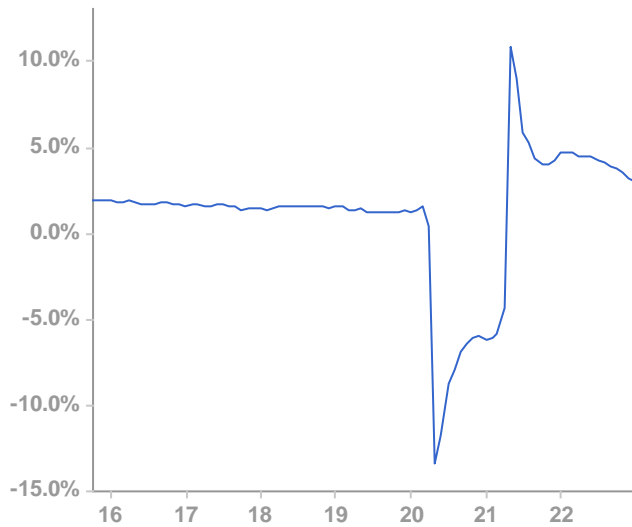
Figure 30: Smoothed US Recession Probabilities



Source: FactSet, FRED Database

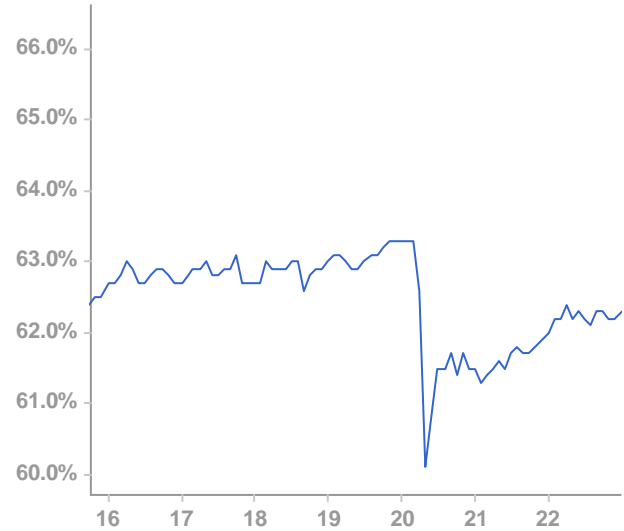
Labor Market Indicators

Figure 31: Payroll Growth (Establishment Survey, % Chg YoY)



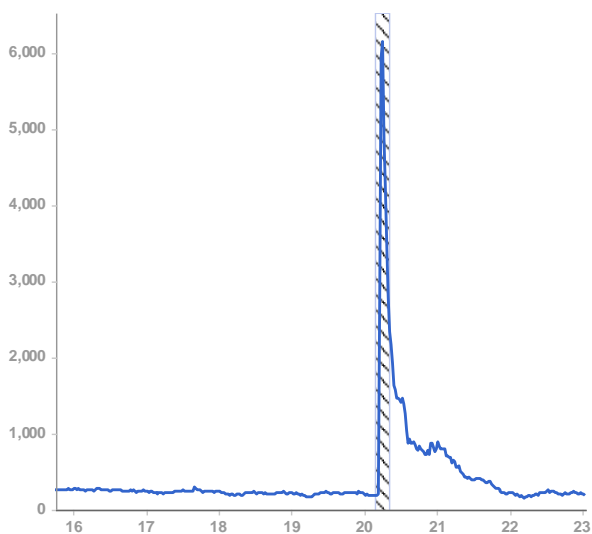
Source: FactSet

Figure 32: Labor Participation Rate (% of Workforce)



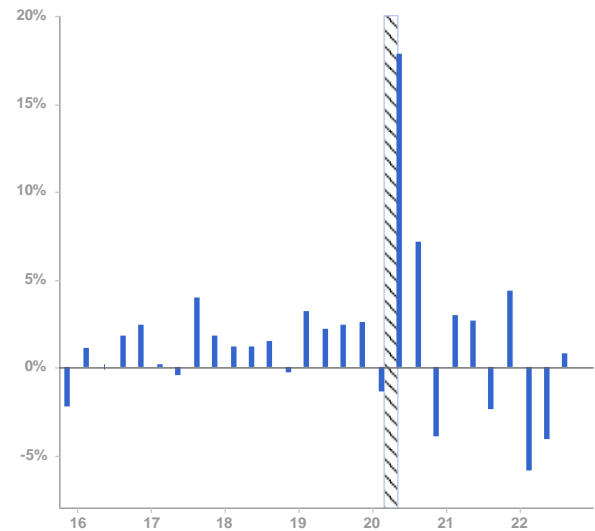
Source: FactSet

Figure 33: Initial Unemployment Claims



Source: FactSet

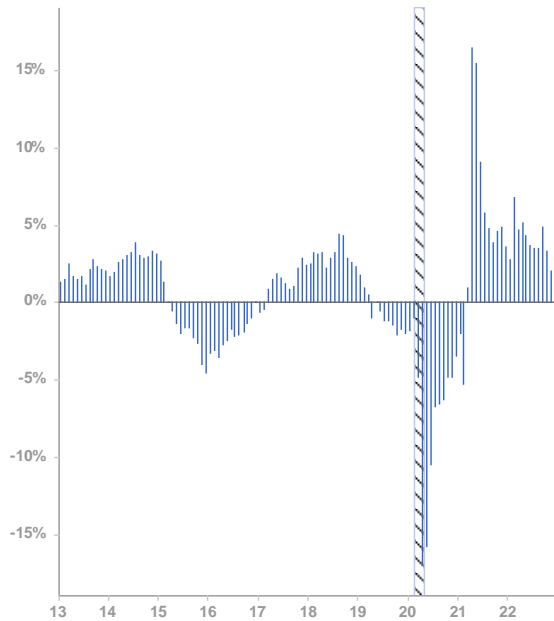
Figure 34: Non-Farm Productivity (% Chg YoY)



Source: FactSet

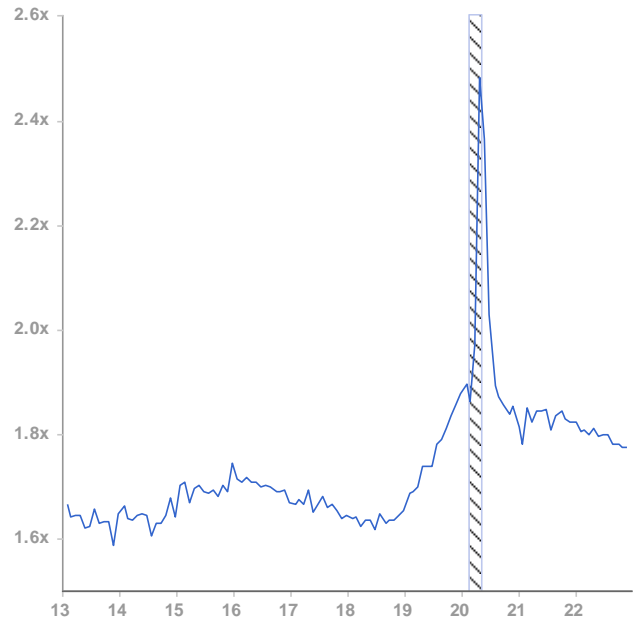
Production and Business Activity Indicators

Figure 35: Industrial Production (% Chg YoY)



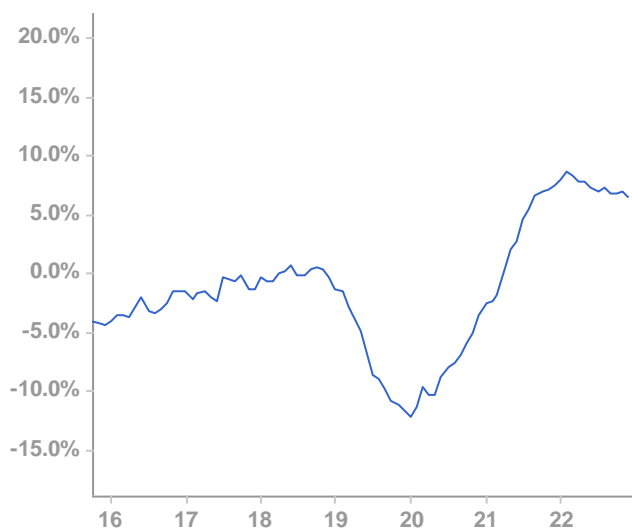
Source: FactSet

Figure 36: US Inventory to Shipment Ratio



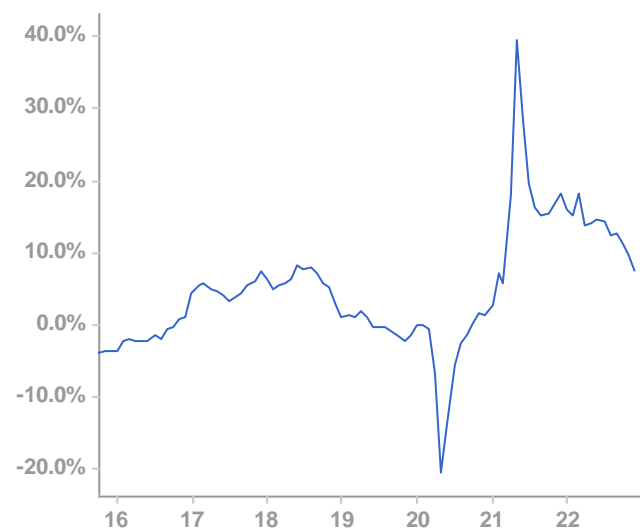
Source: FactSet

Figure 37: Unfilled Orders (% Chg. YoY)



Source: FactSet

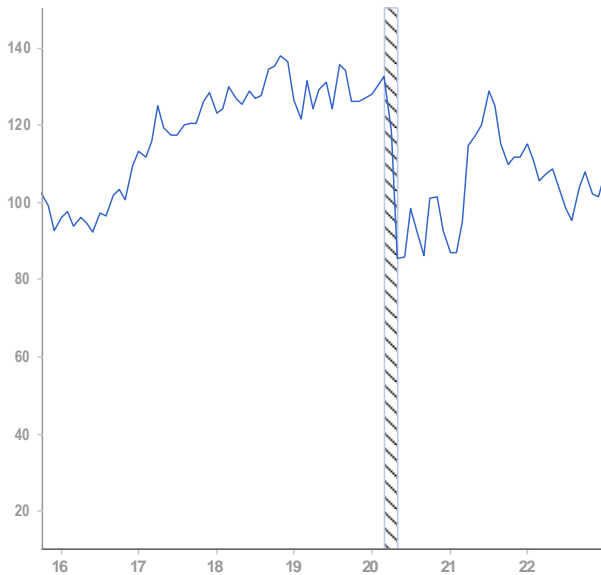
Figure 38: Business Sales (% Chg. YoY)



Source: FactSet

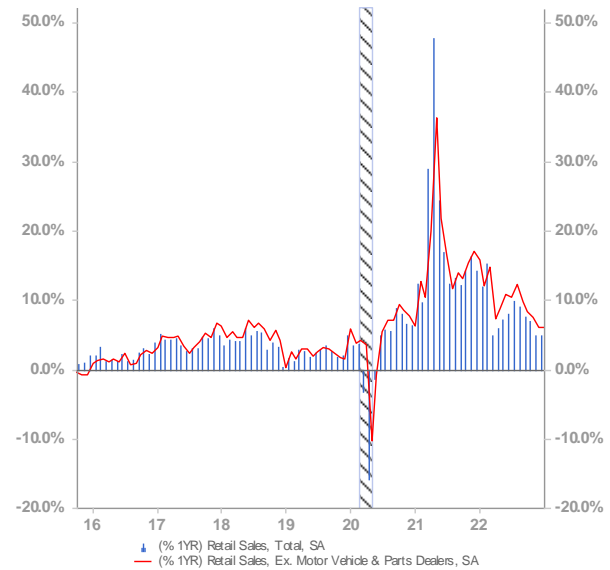
Consumer and Household Activity Indicators

Figure 39: University of Michigan Consumer Sentiment



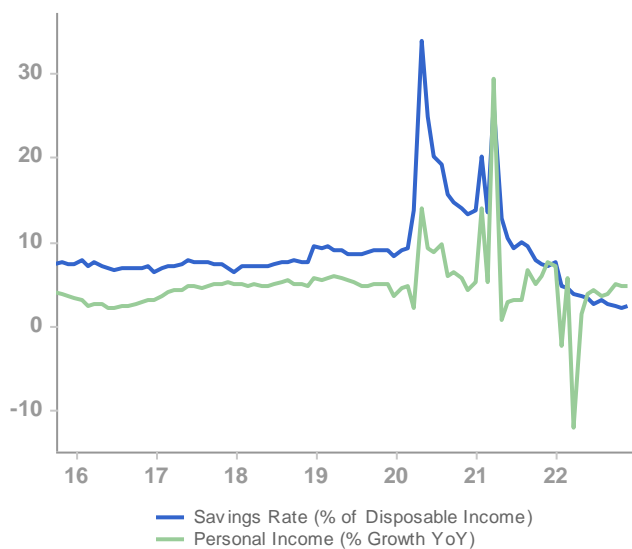
Source: FactSet

Figure 40: Retail Sales



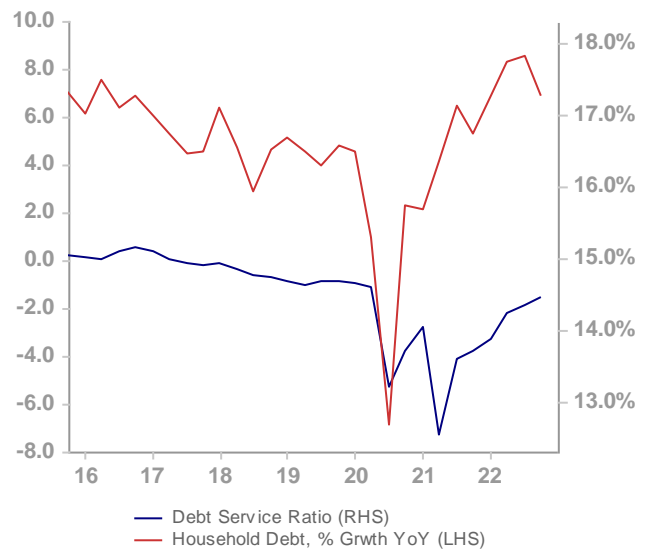
Source: FactSet

Figure 41: Personal Income and Savings Rate



Source: FactSet

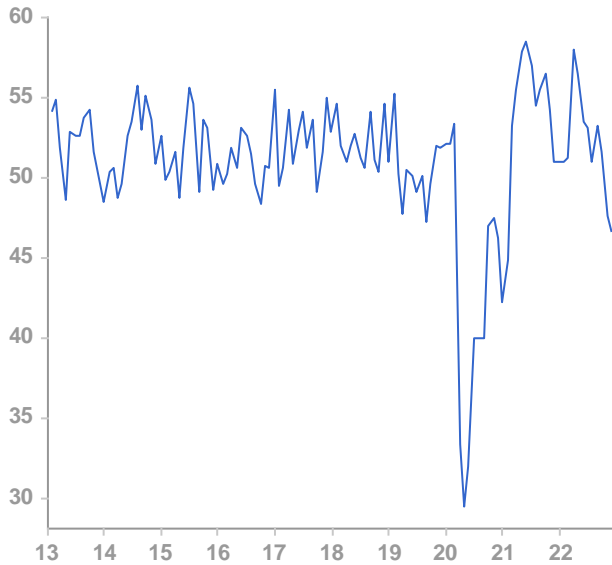
Figure 42: Household Debt



Source: FactSet

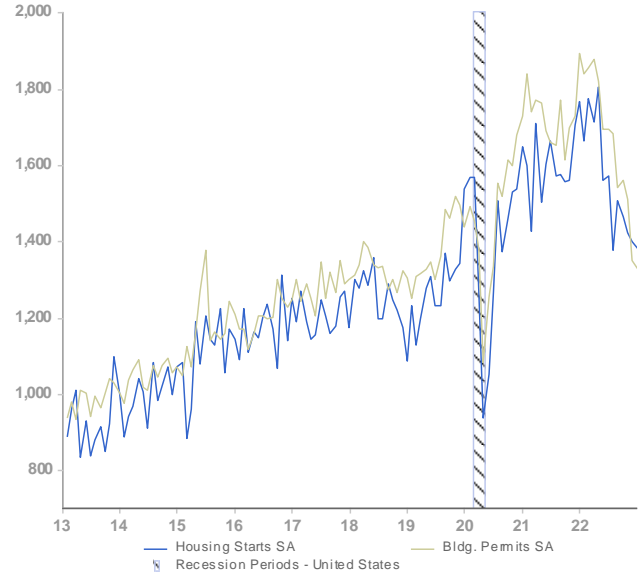
Housing and Construction Indicators

Figure 43: Architecture Billings Index



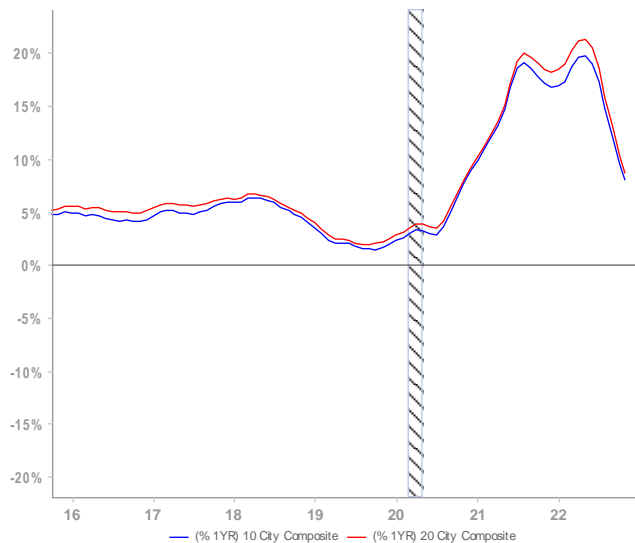
Source: FactSet

Figure 44: Housing Starts and Building Permits



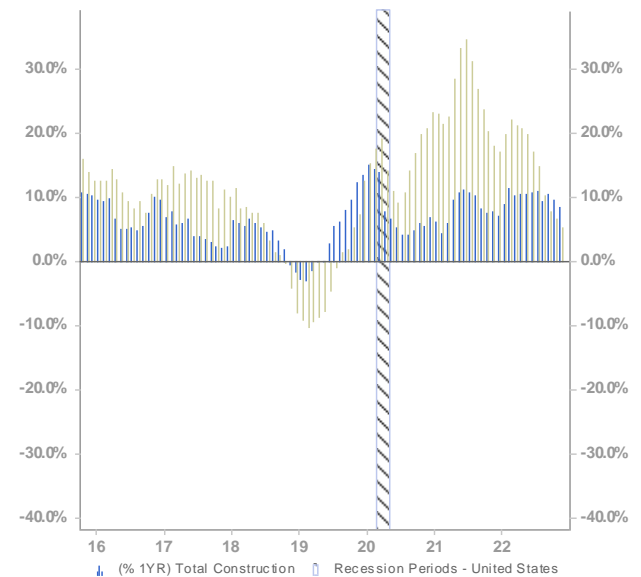
Source: FactSet

Figure 45: Case-Shiller 20-City & 10-City Index, % Chg YoY



Source: FactSet

Figure 46: Private and Total Construction (% Chg YoY)



Source: FactSet

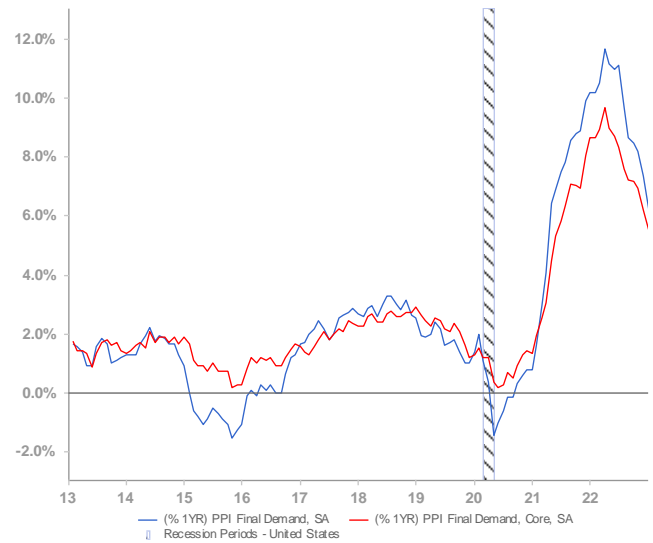
Price Indicators

Figure 47: Consumer Price Index



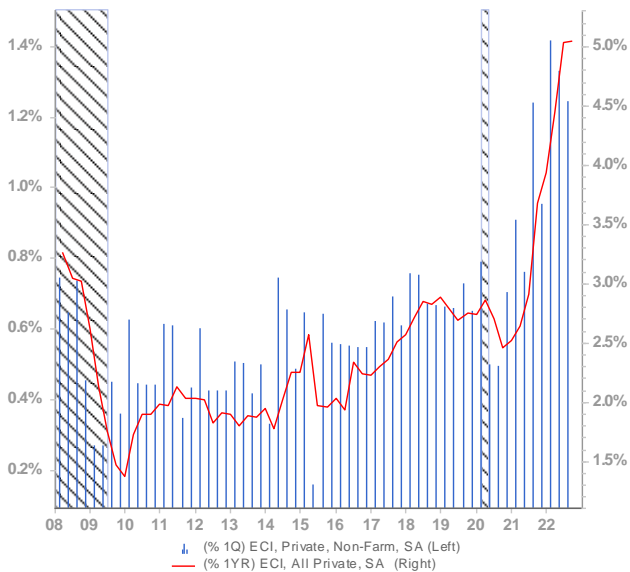
Source: FactSet

Figure 48: Producer Price Index



Source: FactSet

Figure 49: Employment Cost Index



Source: FactSet

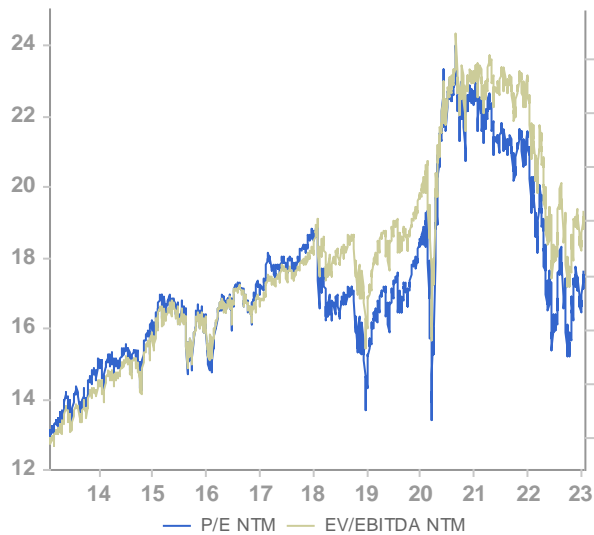
Figure 50: 10-Year, 5-Year Forward Inflation Expectations



Source: FactSet

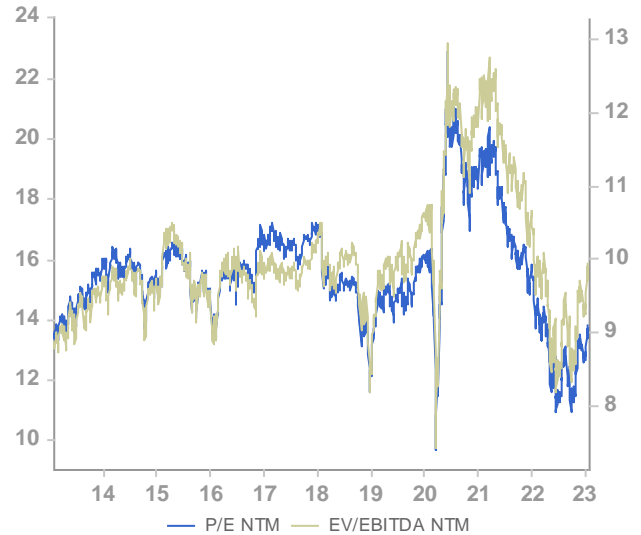
Valuation Indicators

Figure 51: S&P 500 P/E (LHS) & EV/EBITDA (RHS)



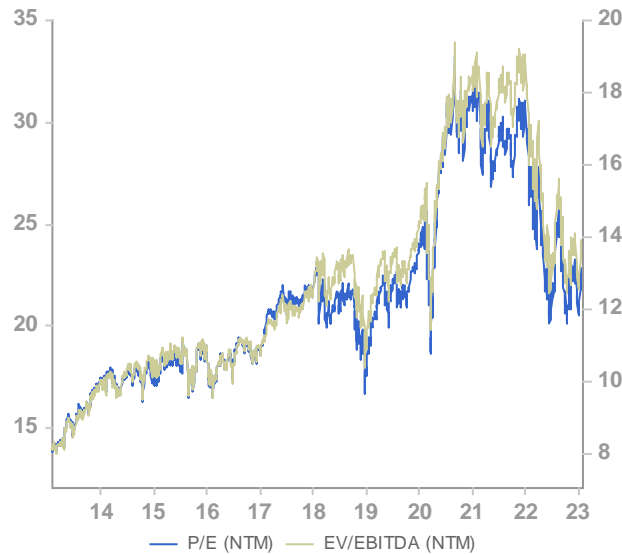
Source: FactSet

Figure 52: S&P Midcap 400 P/E (LHS) & EV/EBITDA (RHS)



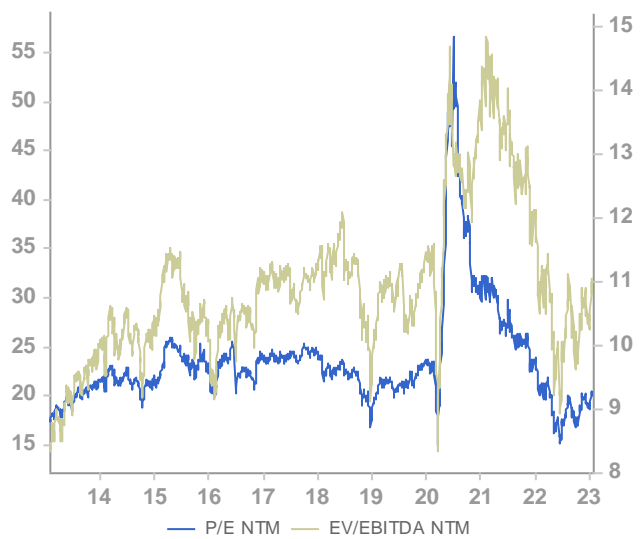
Source: FactSet

Figure 53: Nasdaq 100 P/E (LHS) & EV/EBITDA (RHS)



Source: St. Louis Federal Reserve, FRED Database

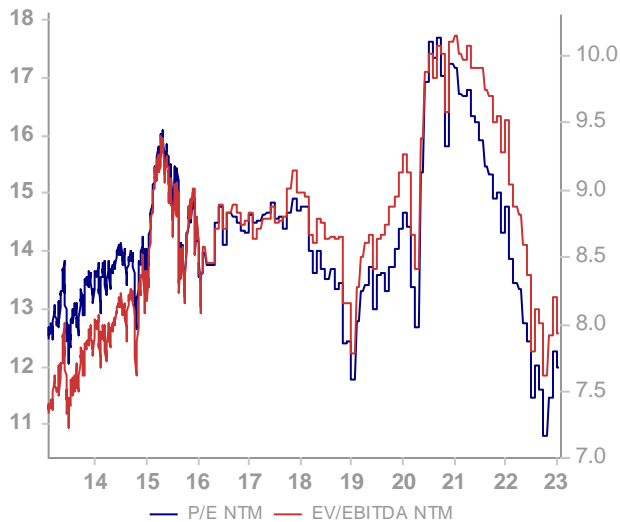
Figure 54: Russell 2000 P/E (LHS) & EV/EBITDA (RHS)



Source: St. Louis Federal Reserve, FRED Database

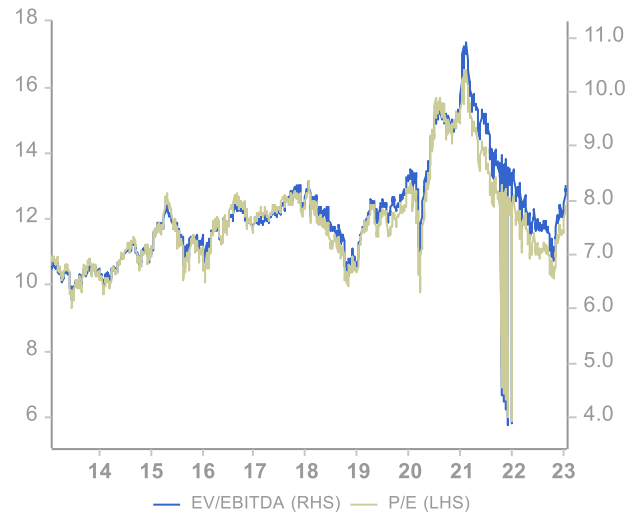
Valuation and Volatility Indicators

Figure 55: Intl Developed P/E (LHS) & EV/EBITDA (RHS)



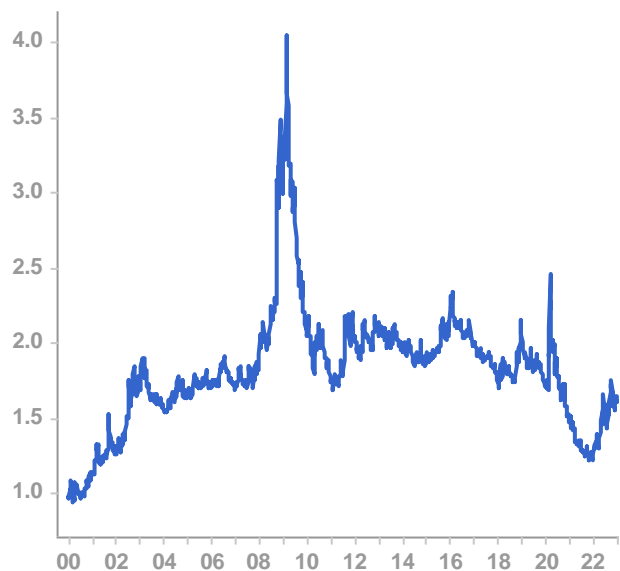
Source: Robert Shiller, Yale University, Rockingstone Advisors, Standard & Poor's

Figure 56: Emerging Markets P/E (LHS) & EV/EBITDA (RHS)



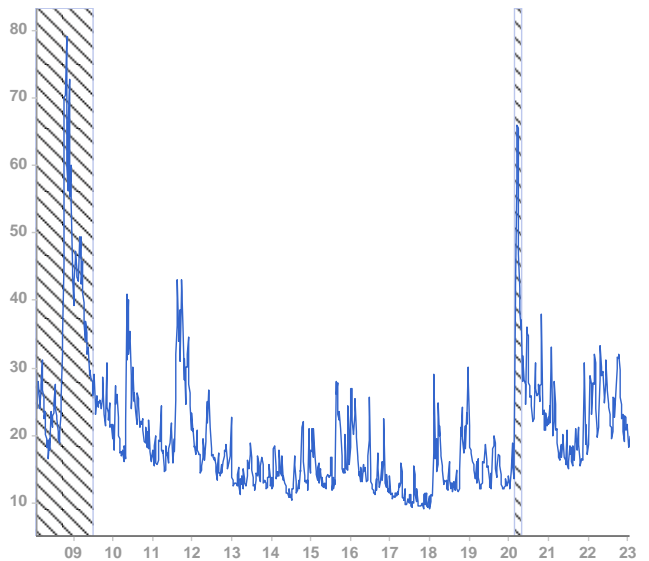
Source: Robert Shiller, Yale University, Rockingstone Advisors, Standard & Poor's

Figure 57: S&P 500 Dividend Yield



Source: FactSet

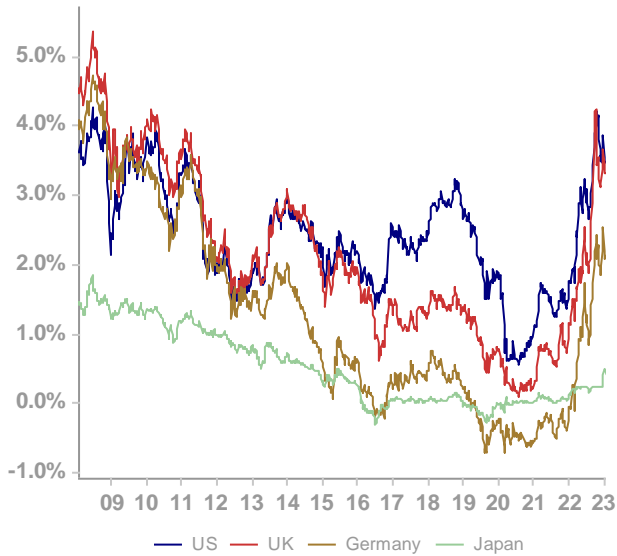
Figure 58: CBOE Volatility Index



Source: FactSet

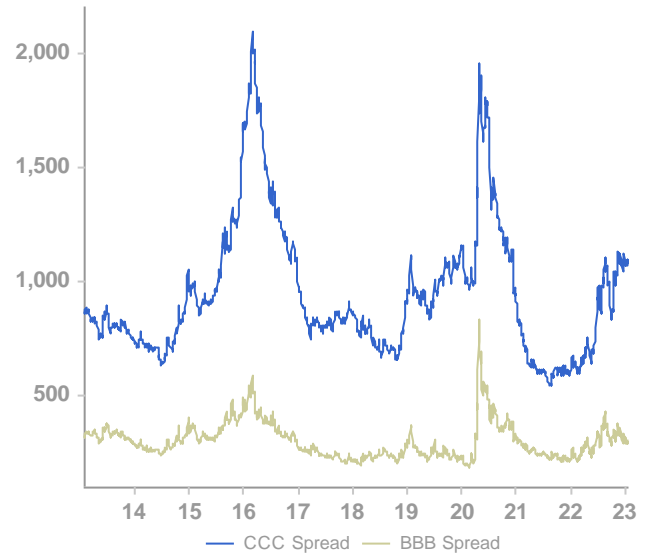
Bond Market Indicators

Figure 59: 10-Year Global Bond Yields



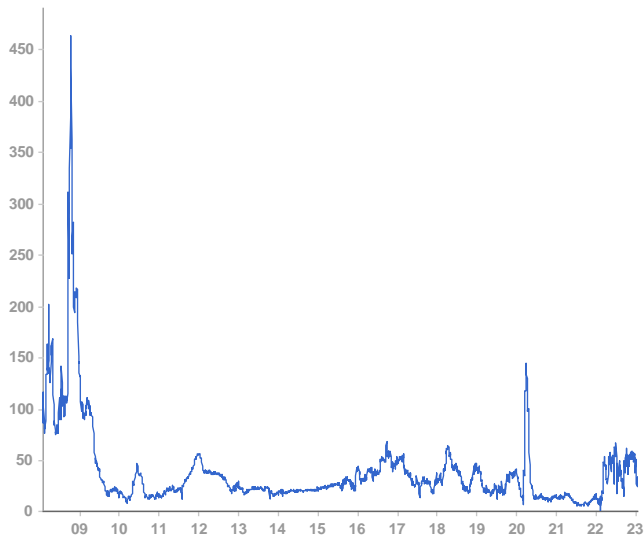
Source: FactSet

Figure 60: CCC and BBB Spreads (Option Adjusted)



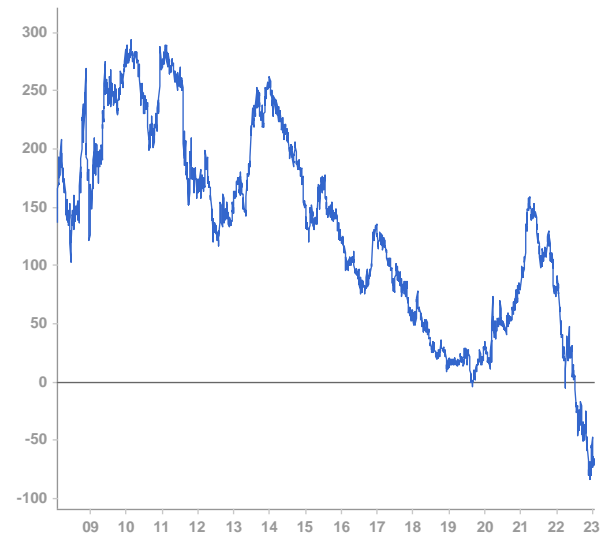
Source: FactSet

Figure 61: TED Spread (bps)



Source: FactSet

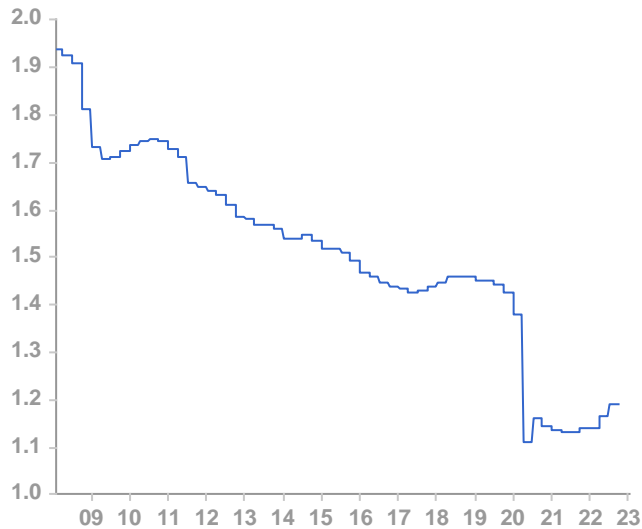
Figure 62: 10-Year Minus 2-Year Treasury



Source: FactSet

Liquidity and Other Indicators

Figure 63: Velocity of M2 Money Stock



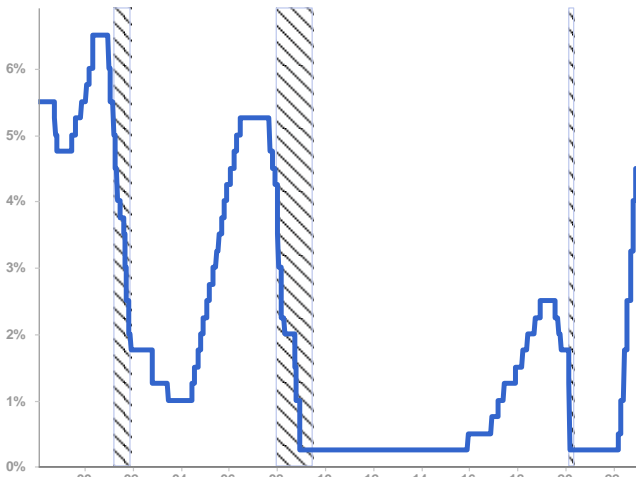
Source: FactSet

Figure 64: Loan Growth (Non-Financial, Private Sector)



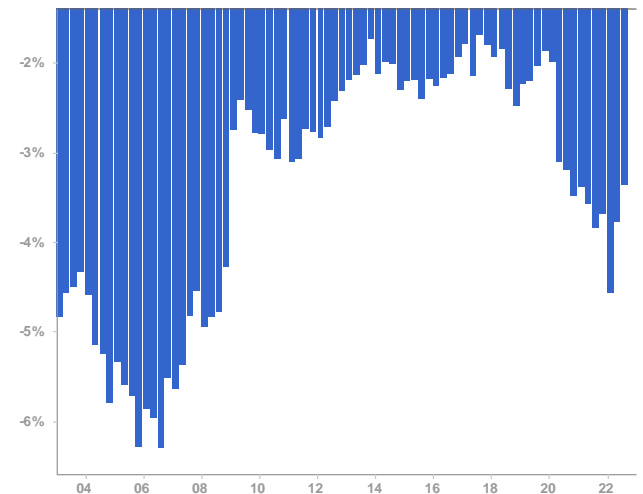
Source: FactSet

Figure 65: Fed Funds Target Rate



Source: St. Louis Federal Reserve, FRED Database

Figure 66: Current Account Deficit (as % of GDP)



Source: St. Louis Federal Reserve, FRED Database

Appendix

Important Regulatory Disclosures and End Notes

Form ADV available upon request. This quarterly is only for informational purposes and not a solicitation to buy or sell securities or as a source of specific investment, legal or tax recommendations.

Rockingstone Advisors is solely responsible for the content of this Quarterly. The information and statistical data contained herein have been obtained from sources we believe are reliable but cannot guarantee.

Rockingstone Advisors performance charts depict the mean aggregate return of all accounts invested with a similar objective and risk tolerance during the entire return period; individual account performance may materially differ according to strategy and portfolio composition. Returns are calculated using time-weighted method (TWM) and are weighted by portfolio assets. Returns can be influenced not only by the actual performance of the underlying portfolios, but by the mix (composition) of portfolios in any given year and the number of portfolios within the sample set. Public equity returns are calculated by Morningstar based on information received from our custodian(s). Other investment returns, including private equity and real estate investments are calculated based on valuation data from parties other than Rockingstone Advisors or at cost. Fixed income returns generated by private notes are recognized when the cash coupon is paid, rather than on an accrued interest basis (except for PiK securities). Annualized return is based on portfolios invested as of June 1, 2009. The sample set of portfolios within each annual cohort has increased over time and the mix changes every year. Our investment returns may reflect investment opportunities that are unavailable to all of our clients, for reasons including: (i) certain funds in which we have invested are now closed to new investors, (ii) certain clients may not meet “accredited investor” standards, (iii) certain investments are available only to officers or directors of a business, and /or (iv) we may believe that historical returns most likely will not be generated by a specific security or strategy and thus are no longer allocating new capital to a specific security or strategy. Past performance is neither indicative of-- nor a predictor of-- future performance. Mean reversion is a powerful force, meaning periods of outperformance are typically followed by periods of underperformance. All figures are net of fees and expenses. Rockingstone’s performance must be assessed in light of not just how we performed relative to the benchmarks, but how much risk we assumed in generating portfolio returns.

Quarterly Data prices are as of December 31, 2022; most other prices and yields are as of January 26, 2023.

We are happy to provide the raw data and source links for any of the charts or tables in this Quarterly. We are also happy to provide individual account performance data by annual cohort or by IRR (instead of TWM) so you can better understand the range of portfolio returns. We thank you for your interest and always appreciate any feedback.

Our contact information:

Brandt Sakakeeny & Eric Katzman, CFA
Rockingstone Advisors LLC
212-430-2240

brandt@rockingstoneadvisors.com
eric@rockingstoneadvisors.com

ⁱ Asset class performance charts depict Equity (SPY ETF), Bonds (BND ETF), Commodities (DBC ETF), Preferred (PFF ETF) and Real Estate (VNQ ETF) price change plus dividends and interest during the selected period.

ⁱⁱ Rockingstone Advisors performance charts depict the mean aggregate return of all accounts invested with a similar objective and risk tolerance during the entire return period; individual account performance may materially differ according to strategy and portfolio composition. Returns are calculated using time-weighted method (TWM) and are weighted by portfolio assets. Returns can be influenced not only by the actual performance of the underlying portfolios, but by the mix of portfolios in any given year. Public equity returns are calculated by Morningstar based on information received from our custodian(s). Other investment returns, including private equity and real estate investments are calculated based on valuation data from parties other than Rockingstone Advisors. Fixed income returns generated by private notes are recognized when the cash coupon is paid, rather than on an accrued interest basis. Annualized return since inception is based on portfolios invested as of June 1, 2009. The sample set of portfolios within each annual cohort has increased over time. Our investment returns may reflect investment opportunities that are unavailable to all of our clients, for reasons including: (i) certain funds in which we have invested are now closed to new investors, (ii) certain clients may not meet “accredited investor” standards, (iii) certain investments are available only to officers or directors of a business, and /or (iv) we may believe that historical returns most likely will not be generated by a specific security or strategy and thus are no longer allocating new capital to a specific security or strategy. Past performance is not indicative or a predictor of future performance. Mean reversion is a powerful force, meaning periods of outperformance are typically followed by periods of underperformance. All figures are net of fees and expenses. Rockingstone’s performance must be assessed in light of not just how we performed relative to the benchmarks, but how much risk we assumed in generating portfolio returns.

ⁱⁱⁱ Our Five-Year Forecast is updated quarterly and reflects our best judgment on future performance based on current valuations relative to historical valuations, as well as our outlook for earnings and macroeconomic conditions. We caution that predicting outcomes is inherently risky and subject to change.

^{iv} Equity performance charts depict U.S. large-cap (SPY ETF), U.S. mid-cap (VO ETF), U.S. small-cap (IWM ETF), International Developed (VEA ETF), and Emerging Markets (VWO ETF) price change plus dividends and interest during the selected period. We note that Vanguard highlighted a trading glitch in the shares of VO during March 31, 2015 that led to prices materially higher than underlying NAV. Hence you should assume VO’s valuation and total return was inflated as of the end of the first quarter.

^v Fixed income performance charts depict Intermediate Government (IEF ETF), High Yield Corporates (JNK ETF), High Grade Corporates (LQD ETF), International Corporates (PICB), and Emerging Markets bonds (EMB ETF) price change plus interest income earned over the selected period.

^{vi} Commodity performance charts depict Precious Metals (DBP ETF), Base Metals (DBB ETF), Oil (DBO ETF), and Agriculture (DBA ETF) price change.