

## Few Places to Hide

### Commodities Rally Sharply While Stocks and Bonds Record Significant Declines

Commodity prices, which had been rising steadily on strengthening demand and limited supply, witnessed major gains in 1Q22 as hostilities escalated in E. Europe. Coupled with hawkish comments from the Fed, rising yields and the specter of recession, stocks and bond prices tumbled. This left investors with few places to hide in an increasingly volatile market.

### Rockingstone Performance

We spent 2021 trimming growth and adding value names to portfolios. Despite those changes, overall performance in 1Q22 (-5.8%) was limited by single stock volatility. We benefited from a short on EU bonds and new positions (DE, PM, SI). Our historical annualized returns incl: 1-yr +7.0%; 3-yr +15.9%; 5-yr +12.5%; Inception (7/1/2008) +11.3%.

### Monetary Policy Operates with a Substantial Lag of 1 - 2 years

Investors are confronted by a currently hawkish Fed, high inflation, supply chain problems and lingering covid shutdowns. Yet we note monetary policy often works with a substantial lag (usually 1-2 years). Even as 1H22 earnings likely remain robust and valuation multiples sticky, we fear the tightening cycle could lead to recession in 2023/2024.

### Implications for Portfolios

Market cross currents are challenging traditional 60/40 balanced portfolios, ESG-oriented investing as well as a multi-decade run for "growth." At the same time, sentiment indicators are overwhelmingly negative, and so too is positioning. We are underweight bonds, cautious on growth equities and overweight energy and defensives.

### S&P500 Forecast & Other Key Indicators

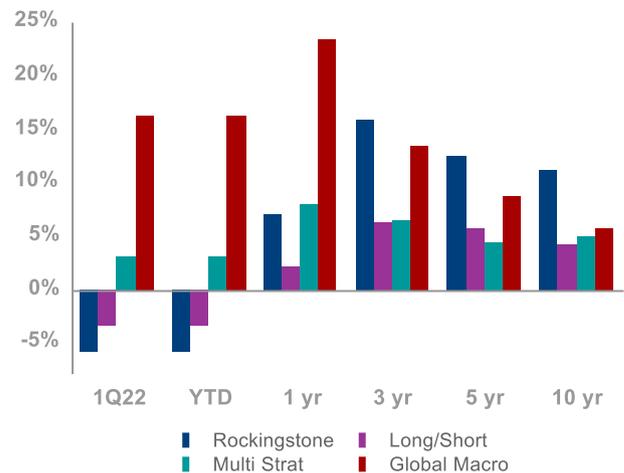
Our forecast includes: EPS (2022/2023: \$220/\$235), S&P500 (2022 year end = 4400), GDP (2022: +2.8%), Gold (\$2,100), Oil (\$120), 10-yr US Bond Yield (3.0%), Inflation (7.0%), 5-yr expected CAGR (US Large Cap -2%, US Mid Cap +3%, US Small Cap +5%, Developed -1%, Emerging +5%). We continue to be very cautious for US Large Cap return potential.

Figure 1: 1Q22 Asset Class Performance<sup>i</sup>



Source: FactSet

Figure 2: Rockingstone: 1Q22 & Historical Annualized Returns<sup>ii</sup>



Source: Rockingstone Advisors, Morningstar, DJ Credit Suisse Indices, Inception = 7/1/2008

## 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](http://www.rockingstoneadvisors.com)

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# 2022: The Key is Inflation

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## Inflationary Pressures Driving Aggressive Fed Rate Hiking Cycle

One of the most important adages on Wall Street is “Don’t fight the Fed.” Liquidity is a large driver of financial asset returns, and an accommodative Fed, as we have seen over the last several years, can fuel significant rises in asset prices. However, when that liquidity is removed—through either higher interest rates, quantitative tightening or both— the inverse occurs.

The Fed’s initial take on rising inflation in 2021 was that it was “transitory” in nature, a function of unsustainable demand trends due to fiscal largesse and broken supply chains due to the pandemic. During most of last year, the Fed believed that as fiscal pandemic relief ended and supply chains were repaired, inflation would slowly drift back to its target level, somewhere around 2%. In late 2021, however, the Fed abandoned its “transitory” language, realizing that several drivers of inflationary pressure were in fact secular rather than cyclical. Adding to typical macroeconomic concerns were studies regarding declining labor force participation rates and that as many as 1-2 million “long haul” covid sufferers have left the workforce.

Perhaps most worrisome was that inflationary expectations were becoming embedded into the economy. When this occurs, individuals and firms accelerate purchasing in fear that future purchases will only be more expensive, creating a vicious circle of pulling forward demand, which only exacerbates inflationary pressures. Once inflationary pressures become embedded, wage rates begin to rise, particularly as more than 2 million workers are covered by collective bargaining agreements that adjust wages for CPI rates. That’s in addition to nearly 48 million social security recipients, 4 million Federal civil service retirees and 22 million food stamp recipients.

Hence, the Fed realized it was “behind the curve,” or Wall Street speak for being late in recognizing the threat inflation posed, and thus late in raising interest rates. More importantly, the Fed’s mischaracterization of inflation as transitory threatened to undo the institution’s credibility earned at great cost by Chairman Paul Volker in the early 1980s. Recall Chairman Volker focused on maintaining “price stability,” which is the Fed’s original statutory mandate and currently one of its dual mandates (the second, full employment, was established much later). The problem with being “behind the curve” is that the Fed does not really have the time to reduce liquidity in a measured fashion; rather, the Fed must move quickly to raise rates and in so doing, materially increases the chance that it makes a severe policy mistake (as monetary policy works with a significant lag estimated to be between 1-2 years) and tightens too much, sending the economy into a recession.

For this reason, we believe the path of inflation in 2021 is currently the single most important driver of equity, bond and commodity returns in 2022. If inflationary pressures continue to persist, the Fed will frankly, in our view, have no option but to push the US economy into recession. Alternatively, if at least some of the drivers of inflation do turn out to be transitory— or at least respond to market signals, then the Fed essentially buys critical time to raise rates in a much more measured cadence. The former will likely prove highly challenging for most financial asset returns while the latter would be a better outcome for most markets.

### Understanding how inflation is measured

In assessing whether inflation has potentially peaked or continues to accelerate higher, an understanding of how inflation is measured, as well as the sub-components that make up the “basket” of consumer prices is required.

First, there are several price indices. The two most common are the Consumer Price Index (CPI) and the Personal Consumption Expenditures Index (PCE). The CPI, published by the Bureau of Labor Statistics, is generally more widely known and gets more media attention. The PCE, published by the Bureau of Economic Analysis, is not as widely known, but considered by many investors, and by policy makers at the Fed, to be the preferred of the two price indices. The PCE is “chained,” meaning that it assumes consumers will substitute lower priced goods for higher priced goods (like switching to chicken if pork prices rise). There are some additional important technical differences between the two price gauges; to make this piece even less boring, we will skip those additional differences and examine the recent figures for each data set.

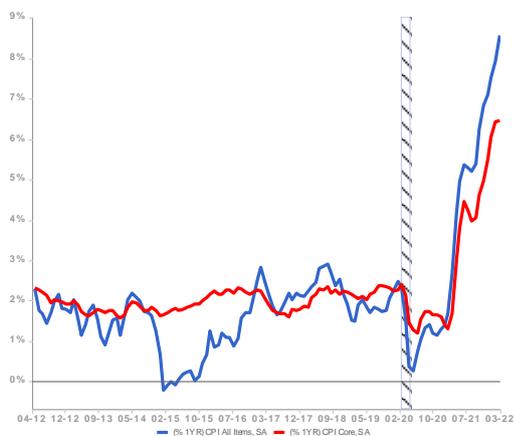
Figure 3: YoY Percentage Change, Monthly, for the CPI-U and PCE Indices

Index	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022
CPI	+6.8%	+7.1%	+7.5%	7.9%	+8.6%
PCE (Chain)	+5.6%	+5.8%	+6.0%	+6.4%	-

Source: Bureau of Labor Statistics; Bureau of Economic Analysis

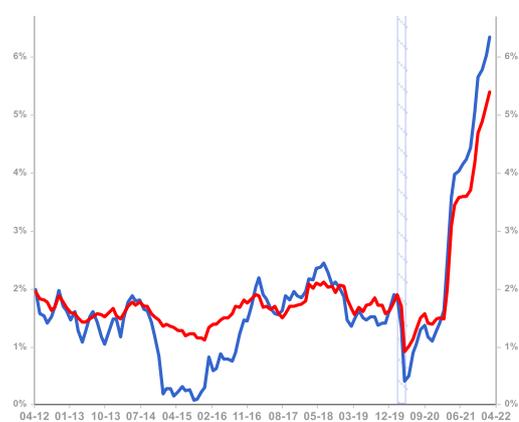
As evidenced in the figure above, CPI generally “overstates” inflation rates due to the lack of substitution effect (as well as some additional adjustments), but the trend of sequentially higher monthly increases in both indices is clear (March 2022 data for the PCE is scheduled to be released on April 29th).

Figure 4: Consumer Price Index (CPI)



Source: FactSet

Figure 5: Personal Consumption Expenditures Index (PCE)



Source: FactSet

Examining the two price gauges (see Figures above), it is relatively easy to see that over the last ten years the trend of both series is highly correlated and over the last two years, sharply higher. Each index contains a basket of goods purchased that are supposed to be representative of the average purchases of an urban consumer. Of course, everyone’s

basket differs from the average and thus prices can vary by region, so price pressures are not necessarily identical across all individuals, families and corporations.

An interesting example is used car pricing. After trending lower from January 2012 until July 2021, the combination of rising demand from the pandemic plus direct stimulus payments from the government fueled an 8% rise in used car prices in 2H20. Another round of stimulus fueled a 21% rise in used car prices in 1H21. By mid-2021 a shortage of semiconductor chips began to idle new automobile production, leading many consumers to substitute used cars for new cars. By 2H21 used car prices had risen 32% and, in the first three months of 2022 were up 40% in January, 41% in February and 35% in March.

#### Examining the drivers of inflation

Price levels are influenced by several factors, some long-term in nature and others shorter-term. Long-term factors include trade (globalization), demographics, productivity, wage rates, the money supply, fiscal deficits and regulations. Shorter-term factors are driven by temporary or cyclical spikes in demand (demand-pull) or shortages of supply (cost-push). While there is some evidence the seeds of inflationary pressure were being sown far before the pandemic, there is little debate that the pandemic—and the government's response to it—have combined to drive prices substantially higher.

For the last decade following the global financial crisis (GFC) of 2008-09, pricing pressures remained subdued due to a combination of factors, including the deflationary pressures from the crisis (higher bankruptcies, more difficult access to credit); ongoing globalization (import competition from China); over-supply of energy. Excess savings (especially in the developed world due to aging demographics) and lackluster demand kept a lid on price pressures and sent global yields plummeting, with many maturities offering negative yields.

Throughout this period, however, consumers and businesses slowly repaired their balance sheets, businesses were created and flourished, excess capacity moderated and lower energy prices limited new supply as exploration and production was curtailed, echoing the sentiment that “the cure to low prices is low prices.” In addition to the rejection of the Trans-Pacific Partnership (TPP) trade effort along with renegotiations of NAFTA, a new set of tariffs under the Trump Administration raised the price of imports from China, beginning a fundamental re-assessment of the push for globalization. Price levels stabilized and started to creep higher; Japanese bond yields bottomed in the summer of 2019; other developed country bonds bottomed in the summer of 2020.

#### Globalization, Inflation and Pandemics

When the pandemic struck in early 2020, there was little slack in the system for a “black swan” event such as Covid-19. Decades of limiting working capital, emphasizing “just in time” production and relying on global supply chains was suddenly disrupted. The combination of past globalization, the reality that viruses spread at exponential speed vs. the limited ability of government policy to change, set the stage for a material jump in price levels. And that is exactly what happened.

Covid-19 was a massive demand-pull shock and a simultaneous supply cost-push event. As the global economy shut down in March 2020, consumers and businesses immediately reduced demand for services like travel, leisure and dining out and increased demand for goods, like second homes, computers, home exercise equipment and used cars. Exacerbating this shift in demand, the government offered stimulus payments directly to consumers. While the initial set of payments under President Trump were in line to below the GDP gap created by the shutdown, subsequent stimulus checks under President Biden, including the \$1.9 trillion American Cares Act passed in early 2021, provided \$150 billion in

monthly stimulus to fill a \$20 billion GDP gap. With so much excess money chasing so few goods, it should come as no surprise that beginning in 2021 the price level accelerated higher.

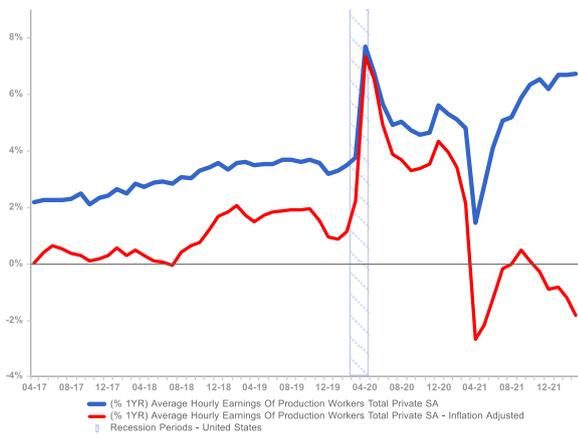
Demand is just one side of the demand-supply relationship, but it was not the only source of inflationary pressure. Forced closures of businesses stopped assembly lines in midstream, jammed transportation hubs and created component headaches for manufacturers large and small, whose just-in-time inventory management was no match for pandemic-related supply shortages.

The Fed expected that as businesses re-opened, supply chains would be repaired. Whether the demand side simply overwhelmed the supply side, or that supply chains were never able to be fully repaired given the widespread nature of the pandemic with its successive strains and multiple waves, is difficult to say. Either way, supplies of critical products continue to be materially constrained, with manufacturers warning that it will take years until they can build sufficient capacity to meet demand.

### Prices pressures should persist

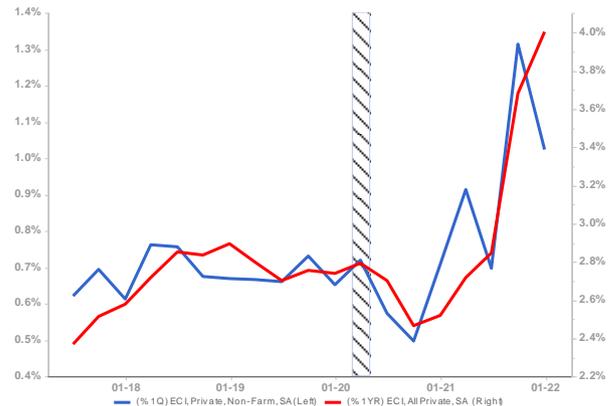
We believe that inflationary pressures may persist longer than is perhaps being currently discounted in asset prices, as both the shorter-term and longer-term dynamics that drive inflationary pressures show no signs of improving.

Figure 6: Average Hourly Earnings (Real vs. Nominal)



Source: FactSet

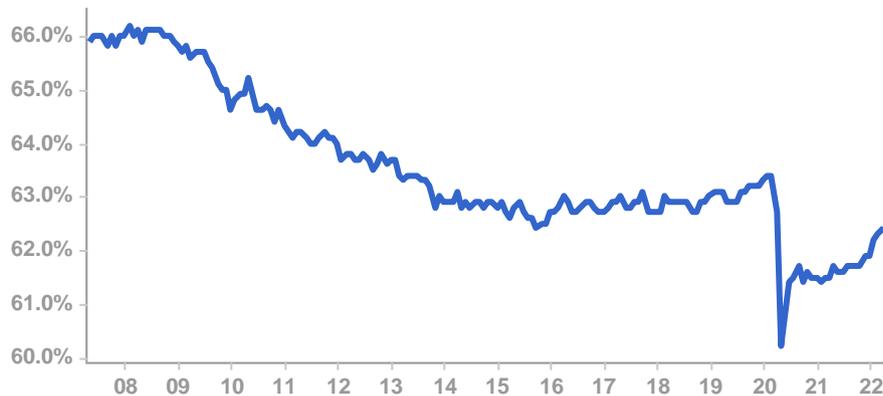
Figure 7: Employment Cost Index



Source: FactSet

In the short-term, wage rates continue to rise, supporting demand trends, although we note that adjusted for inflation, real purchasing power has turned negative. Underlying the growth in wages has been a decline in workforce participation, described in the media as “the great resignation” or the “lying flat” movement. Unless productivity rates rise rapidly to adjust for fewer workers, the gap in labor participation rates is a potential harbinger of longer-term wage rate pressures.

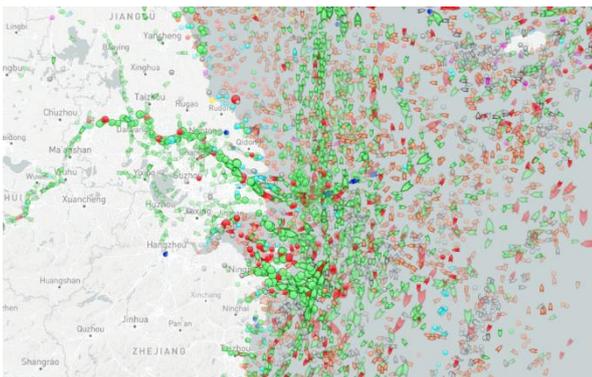
Figure 8: Labor Participation Rate (% of Workforce)



Source: Factset

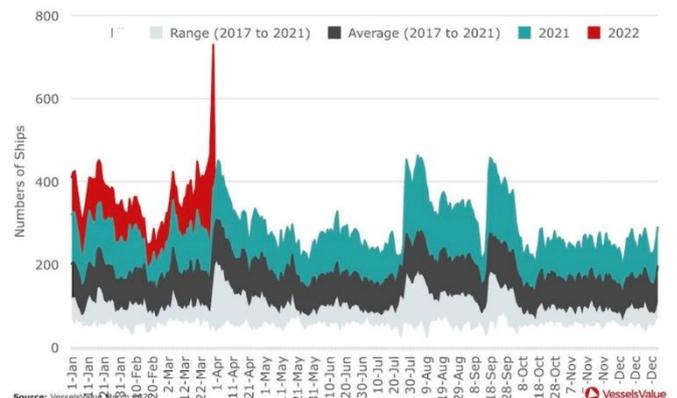
Exacerbating labor shortages, the recent multi-week lock-down of 26 million residents in Shanghai is evidence that some governments—especially authoritarian regimes—are still committed to a zero covid policy, at any cost. Cargo ship traffic has been building outside of Shanghai’s key port, with unloading times skyrocketing.

Figure 9: Shanghai Port Traffic



Source: Marine Traffic

Figure 10: Ships Waiting to Unload at Shanghai Port



Source: VesselValue and Rodrigo Zeidan

Lower workforce participation rates and supply chain constraints are just two factors boosting inflation rates. Sustainably low participation rates should raise the cost of employment across the entire economy and put pressure on prices as businesses look to maintain margins. This is especially true for labor-intensive service industries, as well as professional services such as banking, consulting and accounting. At the same time, supply chain disruptions should increase the cost of imported goods. There are, of course, other components of the consumer basket, including food and energy, which while more volatile than core CPI or PCE, are key inputs to assessing price levels. Unfortunately, there appears to be little evidence of abating price pressures for both food and energy.

With respect to the energy complex, fracking technology led to a boom in US production, a subsequent precipitous drop in prices and bankruptcies across Exploration & Production (E&P) companies. Investors then demanded a focus on positive cash flow from E&P

operators, which in turn led to a sharp curtailment of capital expenditures and production. The combination of these factors led to one of the tightest energy markets in recent history. Even if federal lands are re-opened for drilling (a move that is being considered as this newsletter is published), the long lead times between permitting and drilling, let alone a shortage of drilling equipment, means that there is no quick fix for high energy prices. And because so many end products are derived from energy inputs— clothing, plastics, household products and fertilizers to name a few— the rise in energy prices will be widespread even if the carbon-intensity of the entire economy is lower than it has been in prior energy spikes. Moreover, energy prices are a key input into the transportation industry, especially trucking, freight and airlines, so higher energy prices should lead to higher freight and transport prices, plus higher airline ticket prices.

Food prices are driven by broader supply-demand dynamics, but also by the cost of inputs— mainly seed and fertilizer, transportation to end markets and, over the long term, plant yields. Russia and Ukraine are large agricultural producers and exporters. Ukraine is entering planting season, and given the war, there is a major risk of supply shortages. Russia is a major natural gas exporter, which is why fertilizer prices are rising rapidly. Lastly, we note major crops such as corn, soy and wheat have limited arable, high yielding land and thus unexpected shocks such as war make near term replacement almost impossible.

#### Timing is key

Monetary policy works with a substantial lag, and while financial conditions have tightened around the anticipated reduction in liquidity, current demand remains robust, especially for services that were curtailed or postponed during the pandemic. How quickly the Fed's rate hikes begin to slow demand and offset the natural post-covid recovery is key to portfolio positioning. There have been several studies around the lag effect of monetary and fiscal policy.

Milton Friedman in 1959 famously highlighted this lag noting, "Thus, you have a situation such that, when the Federal Reserve System takes action today, the effect of that action may on some occasions be felt 5 months from now and on other occasions 10 months from now, on other occasions 2 years from now." Moreover, he asserted that due to the substantial lag, oftentimes policy actions had the opposite effect of what was originally intended.

He wrote, "It is because of this long lag in the reaction to policy that you have this tendency for policy in fact to have an effect opposite to that intended." In 1971 Friedman followed up his initial work with a paper presented to the American Economic Association in which he concluded that estimates of the money growth/CPI inflation relationship gave "the highest correlation...[with] money leading twenty months for M1 and twenty-three months for M2."

In 1999 Bernanke, Laubach, Mishkin and Posen describe a two-year lag between policy actions and the main effect on inflation as a "common estimate." Thus, if the Fed's actions generally take at least a year and possibly as many as two years to slow the economy, the soonest we would expect to see a material slowdown in economic activity would be the first half of 2023, and possibly as late as the first half of 2024.

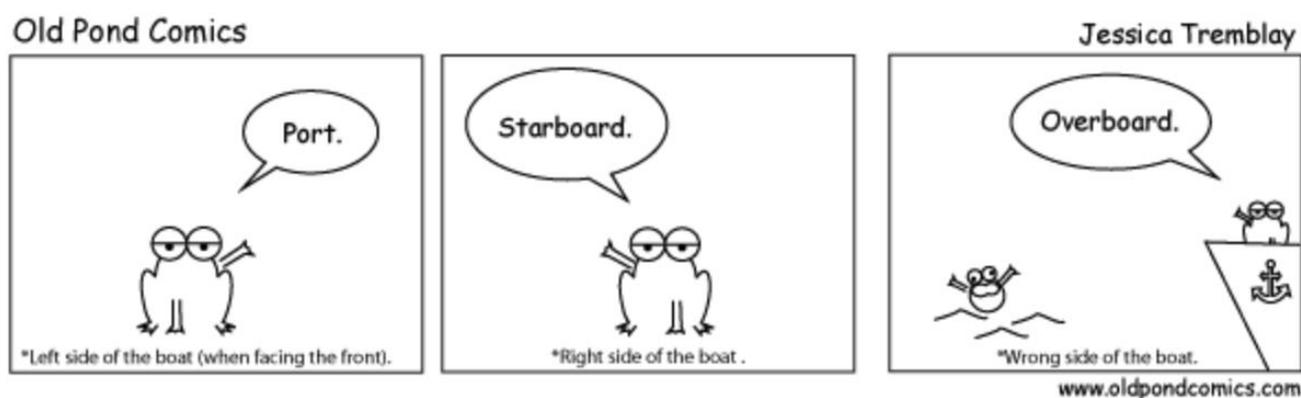
Meanwhile, demand should remain reasonably strong. The airline industry is one example. Higher cost for jet fuel has traditionally limited earnings and multiple growth in the sector. However, current pent-up air travel demand is so strong that airlines presently can pass through higher fuel cost in the form of higher ticket prices. How long this will last is unclear, but we suspect it can persist for at least the next few quarters and possibly well into 2023.

## Summary

We see few factors that will lessen inflationary pressures in the near term. It is highly likely to come down to (i) the Fed's decision around how much pain to inflict to ensure price stability and (ii) how the lagged impact of monetary actions get reflected in the underlying pace of economic activity.

Our sense is that at least for 2022, it is unlikely that tightening will have a material effect on economic activity, and we will not see real evidence of slowing global growth at least until 2023. As markets discount at least six months in advance, we suspect financial market behavior can remain moderately constructive through at least 1H22 but expect volatility to remain high.

Figure 11: Comic Relief



Source: Used with permission from Old Pond Comics and Jessica Tremblay

From a portfolio management perspective, we have employed the following approach to reflect our views on inflation running “higher for longer”:

1. **Fixed Income.** Relative to benchmarks, we have been underweight bonds, kept duration low and used floating rate notes (FLRN). In select accounts, we are short foreign-developed bonds (BNDX) while long emerging market debt. Unfortunately, we have also owned preferreds (PFF), which have performed poorly of late, although our view is that long term returns for these hybrid securities will be okay.
2. **Equities.** Although we are concerned the equity risk premium remains too low, the TINA (“there is no alternative”) principle rings true. Despite being invested in equities, we note most taxable portfolios at Rockingstone have some type of short position to tax-efficiently reduce beta. For accounts with a global benchmark, we have been under-weighted to non-US securities given the strength of the US dollar (which is due in part to higher US interest rates).
3. **Sectors.** We remain overweight energy and defensives and while notably underweight technology. The challenge for our diversified portfolios is that technology is roughly 25% of the S&P vs. energy which only has a weighting of about 4%! Thus, having a technology weight of say 20% (i.e. 20% under the benchmark) vs. having an energy weighting of 6% (i.e. 50% over the benchmark) has been insufficient in terms of total returns.

4. Individual securities. In terms of specific equities, we have trimmed or exited names that might be susceptible to higher input costs and who have limited ability to pass on price increases, and rotated into companies that should benefit from inelastic demand or higher agriculture and energy prices, such as Philip Morris (seeing a high dividend yield, pricing power, and global reach as compelling), Deere (on the back of higher agricultural prices, wealthier farmers often invest in new equipment) and Silvergate (a US regulated bank with a unique cryptocurrency exchange).
  
5. Inflation. As noted previously, we consider inflation to be a significant and potentially long-lasting threat to returns. For clients with higher risk tolerances, we set up crypto-currency accounts at BITRIA/Gemini as our belief is that blockchain technology will be an efficient hedge.

# Forecast: 2022

## Rockingstone Advisors: Our Latest Forecasts

We have updated our forecasts to reflect Rockingstone’s outlook for 2022. Over the last several years as inflation remained muted, there was not necessarily a material difference between nominal and real (i.e. adjusted for inflation) figures. However, with PCE running around 6%, the delta between real and nominal has become stark. Our forecasts below represent nominal figures. Upwards revisions to these figures have historically been bullish; today, the bulk of upward revisions could in fact be due to higher inflation, rather than higher real growth rates.

Figure 12: Key Metric Forecast

Metric	Year End December	
	Band	Point
US Real GDP (2022)	+1.5% to +3.5%	2.8%
S&P 500 2022 EPS (RSA/Street)	NA	\$220 / \$226
S&P 500 2023 EPS (RSA/Street)	NA	\$235 / \$249
S&P 500 2022 Index	4300-4700	4400
10-Yr US Treasury Yield	2.75% - 3.25%	3.0%
Oil (WTI-2022 End)	\$100 - \$130	\$120
Gold (2022 End)	\$1,950 - \$2,250	\$2,100
Inflation (NTM)	+6.5% to +8.0%	7.0%

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

A few observations and comments:

1. S&P 500 EPS. Final 2021 S&P 500 EPS were \$198. The current EPS consensus for 2022 of \$226 implies just shy of 15% growth (or about 8% real) in S&P 500 earnings vs. 2021. We emphasize the \$226 figure is about \$26 higher than the consensus forecast at the end of 2021. How much of this upward revision is due to real economic growth vs faster inflation is hard to dis-aggregate. Our expectations are for about 11% growth in EPS (or about 4% real), which is more in line with history and reflects our caution around the risk of operating margin compression associated with higher wage rates and residual supply chain issues. For this reason, our earnings forecast is \$220 for 2022. We introduce our 2023 S&P 500 earnings estimate of \$235, which implies flat real growth.
2. S&P 500 2022 Index. The index is currently trading at our year-end price target of 4400. As inflation rates lift the nominal earnings figure for the S&P, we would expect the P/E multiple to compress in a linear fashion with the increase in nominal earnings. In other words, while we have slightly raised our expectation for S&P 500 earnings in 2022, the bulk of that increase is due to higher inflation rather than higher real earnings. Hence, where we previously expected a P/E multiple of 20.5x our \$215 figure, we now expect about 20.0x our \$220 EPS estimate. Thus, our price target of 4400 for the S&P 500 remains unchanged.
3. 10-Yr US Treasury Yield. We under-estimated the move in yields, having consistently been burned by periodic and unsuccessful bearish bets on US treasuries. For the reasons outlined previously, we continue to believe that

inflation may run hotter than expected; hence, we are revising upward our forecast for US 10-year treasury yields to 3%.

4. Oil. While we have been constructive on the energy complex and overweighted the industry relative to the benchmark, we obviously did not forecast the Ukraine-Russian conflict and the impact that war would have on global energy prices. We have revised higher our forecast from \$90 to \$120 a barrel for WTI.
5. Inflation. A tight labor market, ongoing supply disruptions, the substantial lag effect of monetary policy should all conspire to keep inflation rates substantially above trend at least for 2022. We expect PCE to run around 7% and drift higher through the year, despite easier year over year comparisons.

# Five Year Asset Value Forecast<sup>iii</sup>

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

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 (1) historical sales growth, (2) corporate profit margins, (3) dividend yields, and (4) 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 presently the economy suggests lowered expectations are likely prudent. Profit margins are back above their recent history, so they are now dilutive to valuation.

Our latest calculation for long-term returns suggests that asset allocation across geographies and capitalization is particularly important today. As evidenced in the table below, there is a significant disparity. It should come as no surprise to investors that US large cap stocks appear to offer the lowest long-term return potential from current levels. Valuation for the S&P500 is well above its historical mean as are margins; if both mean revert, muted returns should be expected. Conversely, we note that US small-caps (using the S&P 600) appear to offer far better returns given low current operating margins and more modest headwinds from valuation.

Outside of the US, Emerging Market shares seem to offer decent return potential in the mid-single digits. We note that these returns assume a constant dollar; if we see additional material \$US depreciation, foreign markets could offer double digit returns.

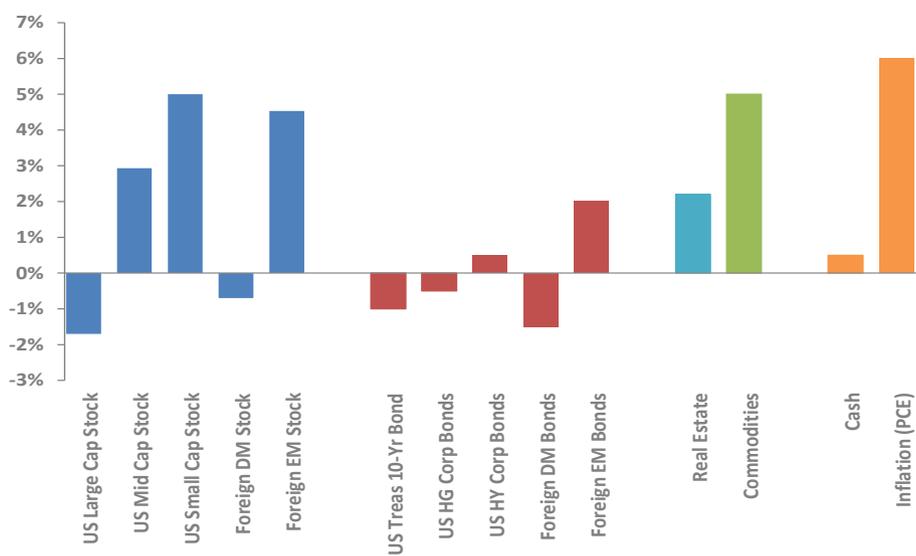
Figure 13: Five-Year Total Equity Return Calculations (Incremental Contribution)

<b>Asset</b>	<b>Index</b>	<b>LT Exp. Return</b>		<b>Sales</b>		<b>Profit Margin</b>		<b>Div.Yield</b>		<b>Valuation</b>
US Large Cap Stock	S&P500	-1.7%	=	4.5%	-	3.9%	+	1.4%	-	3.7%
US Mid Cap Stock	S&P400	2.9%	=	4.0%	-	5.3%	+	1.5%	+	2.7%
US Small Cap Stock	S&P600	5.0%	=	5.6%	-	4.9%	+	1.5%	+	2.8%
Foreign DM Stock	MSCI-EAFE	-0.7%	=	2.0%	-	3.8%	+	2.5%	-	1.4%
Foreign EM Stock	MSCI-EM	4.5%	=	4.5%	-	2.1%	+	2.1%	-	0.0%

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 a recovery and inflation up tick. 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 14: Five-Year Asset Class Total Return Forecast



Source: Rockingstone Advisors

# Equity Performance Review

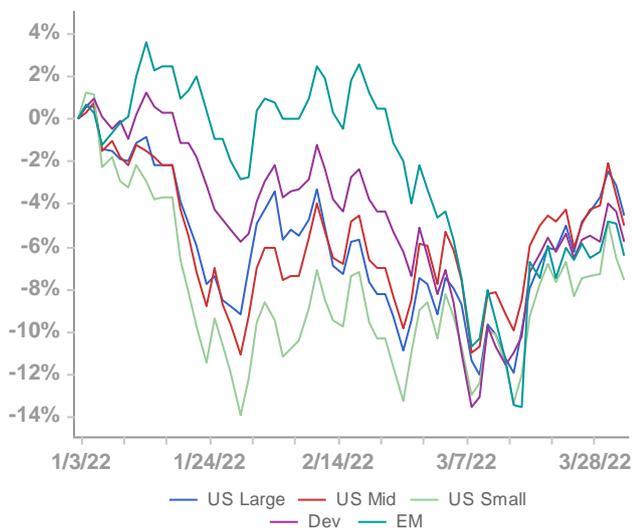
## Equity Declines Widespread, with Growth Underperforming Value

As Figure 15 shows, global equities rallied in the first week of the year. However, bond yields began to make a sharp move higher, and in doing so, thus began a re-rating in equity markets across the globe. Hardest hit by rising rates were relatively (and absolutely) expensive, growth-oriented US stocks. Growth stocks are particularly susceptible to changes in the discount rate (or interest rate) as the bulk of their earnings is well into the future. Growth stocks were not the only equity component to see substantial losses, as small cap stocks recorded declines of almost 14% in the first three weeks of the year. Foreign developed and Emerging markets outperformed the US market in the first part of the quarter.

There was a short-lived relief rally at the end of January into February, as investors discounted the risk of a conflict in Ukraine, believing that President Putin would be more judicious in trying to achieve Russia's security objectives. However, once the invasion began, stocks sold off. The outperformance of developed and emerging stocks disappeared as investors sought safety in US large-cap names, partially for their liquidity, and partially because European shares risked the greatest impact from a spike in energy prices from the war on their eastern border. By the end of the quarter there was another relief rally as Ukraine's armed forces performance exceeded expectations and perhaps some expectation that soon to be released earnings wouldn't disappoint.

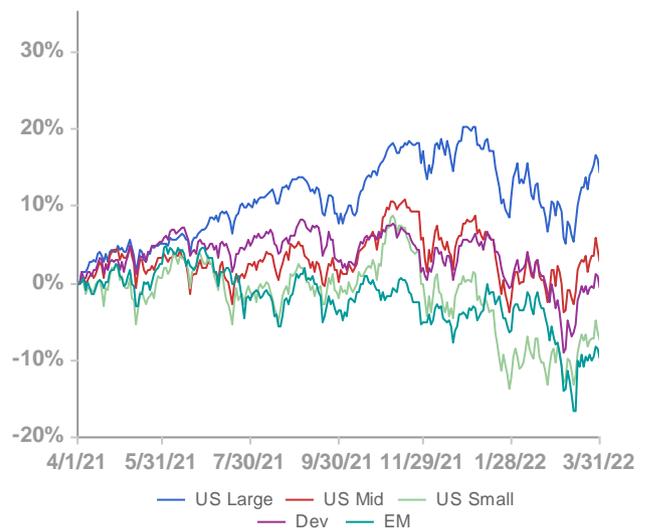
We highlight the following performance regarding 1Q22 and 12M22, respectively, results: US large-cap (-4.6% and +14.2%), US mid-cap (-6.3% and +7.2%), US small-cap (-7.5% and -7.3%), Developed (-5.8% and -0.5%), Emerging (-6.5% and -9.6%).

Figure 15: 1Q22 Equity Performance <sup>iv</sup>



Source: FactSet

Figure 16: 12M22 Equity Performance



Source: FactSet

# Fixed Income Performance Review

## Bonds Experience Their Worst Performance Maybe Ever

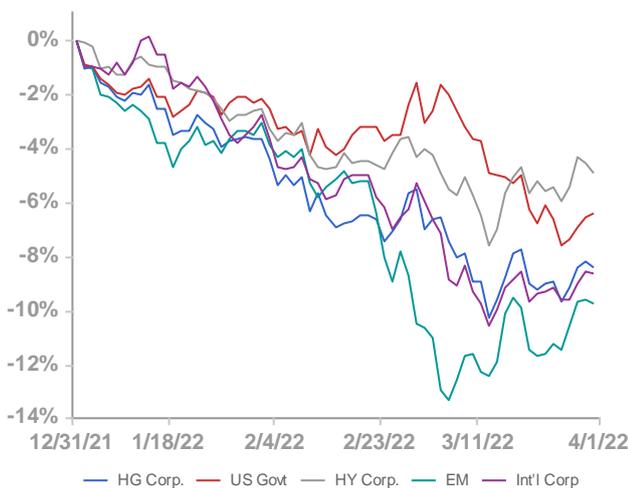
Fixed income markets were absolutely crushed in the first quarter. Positioned in many portfolios to add ballast and limit the risk of an all-equity portfolio, bonds not only failed to do so, but exacerbated 1Q22 declines in blended portfolios. In hindsight, that bond yields should rise as inflation accelerated, should surprise no one, though why it took the change in calendar year as a catalyst, we do not know. While inflationary pressures had been building steadily throughout last year, US treasury yields actually peaked at the end of March 2021 at 2.7% and then proceeded over the next nine months to do exactly what we did not expect: ending the year of 2021 at 1.5%. Once the calendar turned to 2022, however, whatever technical factors had been driving rates lower suddenly reversed and interest rates across the globe rose substantially in just the first few weeks.

The carnage was widespread: US Treasuries had their worst quarter since record keeping began in 1973, as long-term rates rose from 1.5% to 2.3% and treasury prices fell 6.4%. Emerging markets bonds declined more than 9%, high grade corporates down more than 8% and Preferreds (while not technically a bond) more than 7%. Notably, high yield bonds were the best performing fixed income, down just 4.9%.

We have long argued that given low yields, it is hard to justify much exposure to fixed income, and we have been underweight US bonds and short European bonds. Between the specter of central bank rate increases and inflation, many measures of valuation suggest bonds are more expensive than equities.

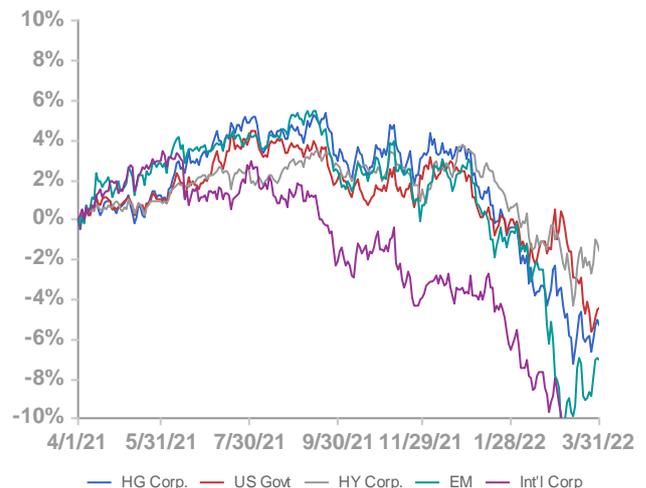
We note the following performance figures for 1Q22 and 12M22, respectively: US High Grades (-8.4% and -5.3%), US Governments (-6.4% and -4.3%), US High Yield (-4.8% and -1.7%), International Developed (-4.8% and -4.7%), Emerging Markets (-9.7% and -7.0%).

Figure 17: 1Q22 Fixed Income Performance<sup>v</sup>



Source: FactSet

Figure 18: 12M22 Fixed Income Performance



Source: FactSet

# Commodity Performance Review

## The Lone Bright Spot

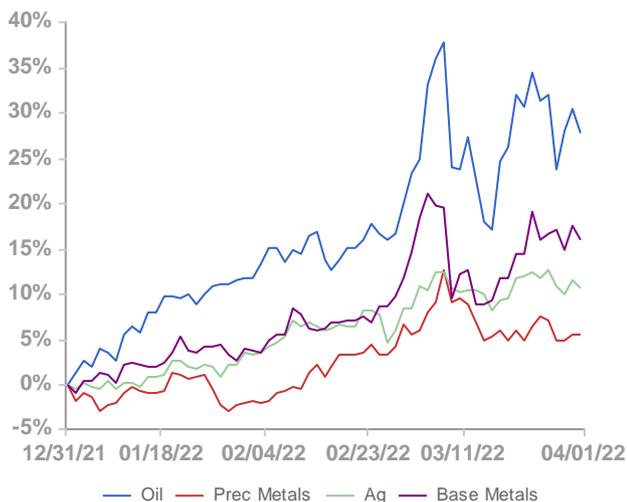
The first quarter was a banner year for almost every commodity. Energy was the clear stand-out, benefiting from the combination of tight supplies and rising demand from markets that had been negatively impacted by Covid. These factors together would normally be sufficient for a solid return, but the energy complex received an extra boost due to the conflict between Ukraine and Russia, as energy consumers became concerned with the risk that Russian natural gas delivered to Europe via Ukrainian pipelines might come to an end.

As has been noted earlier, oil and natural gas find their way into many end products, including clothing, plastics and fertilizer, so the rise in energy prices also helped to fuel a major increase in soft commodities, especially agriculture. Given that Ukraine and Russia are together two of the world's largest exporters of agricultural commodities, the war between the two countries exacerbated an already-tight supply picture.

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.

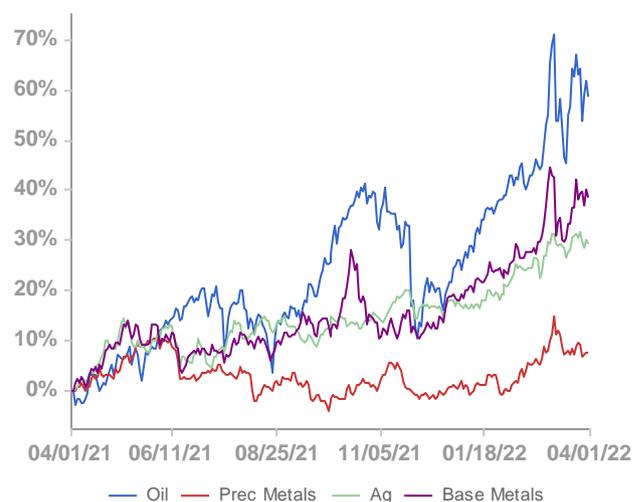
Rockingstone typically invest in commodities via ETFs and the below graphs display what we view as representative performance for the underlying commodities. We note the following returns during the 1Q22 and 12M22, respectively: Oil (+27.8% and +58.8%), Precious Metals (+5.7% and +7.7%), Agriculture (+10.8% and +29.4%), Base Metals (+16.1% and +38.4%).

Figure 19: 1Q22 Commodity Performance<sup>vi</sup>



Source: FactSet

Figure 20: 12M22 Commodity Performance

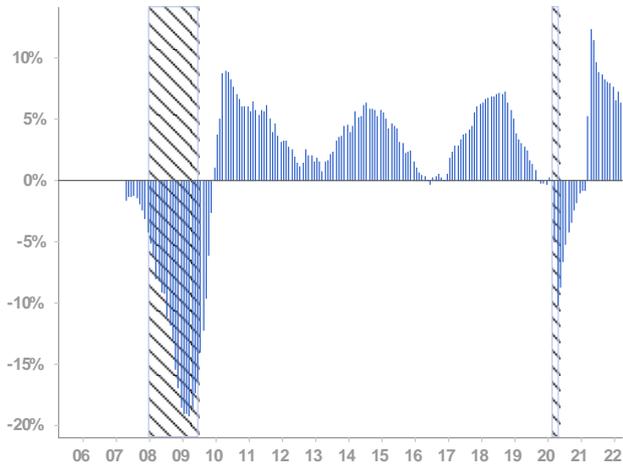


Source: FactSet

# Chart Book

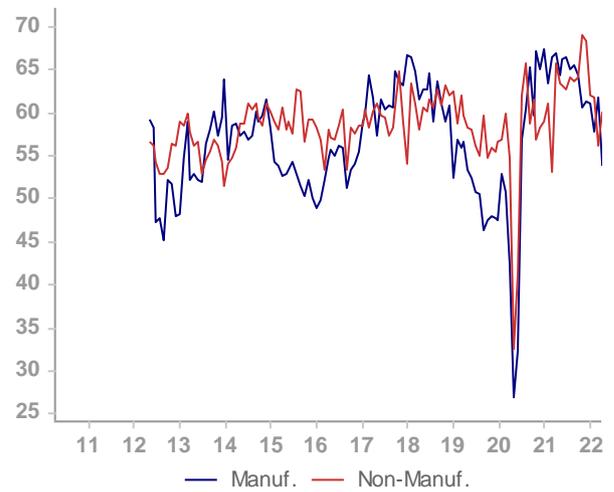
## Leading Indicators

Figure 21: Index of Leading Economic Indicators



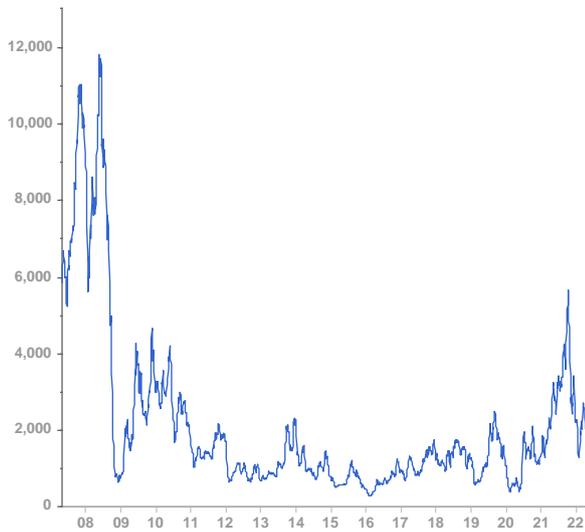
Source: FactSet

Figure 22: ISM New Orders



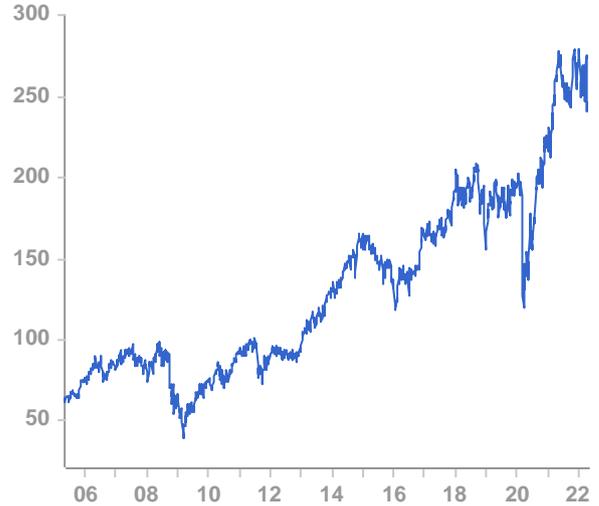
Source: St. Louis Federal Reserve, FRED Database

Figure 23: Baltic Freight Index



Source: FactSet

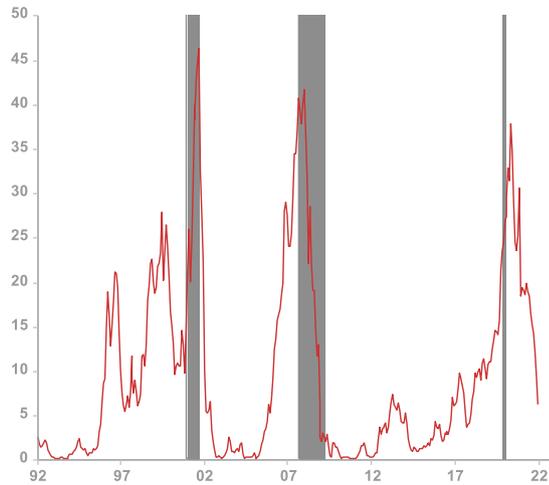
Figure 24: DJ Transports



Source: FactSet

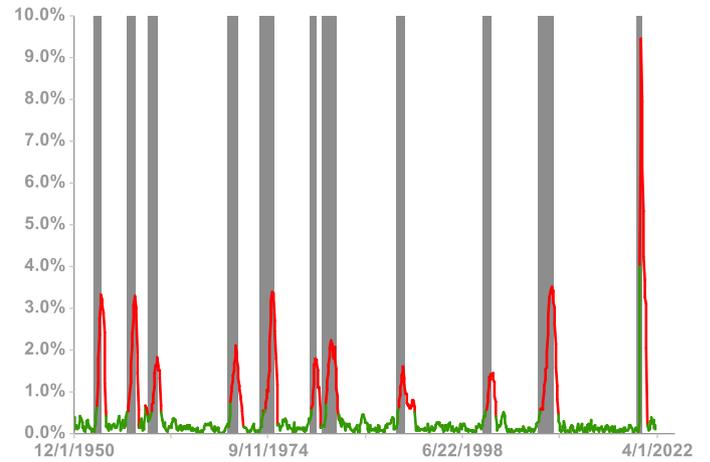
## Real-time Recession Risk Indicators

Figure 25: Treasury Spread Recession Predictor



Source: FactSet, FRED Database

Figure 26: Sahm Real-time Recession Predictor



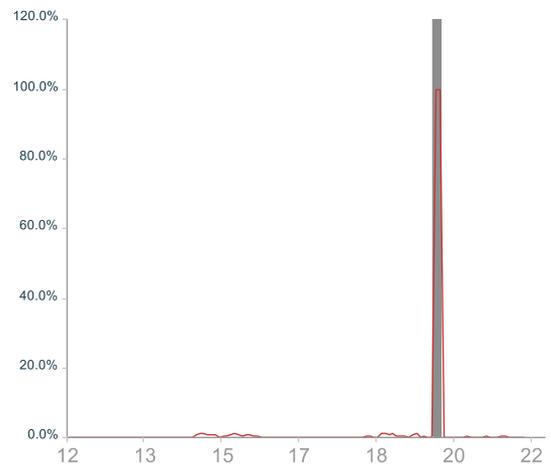
Source: St. Louis Federal Reserve, FRED Database

Figure 27: GDP Now (Atlanta Fed)



Source: FactSet, FRED Database

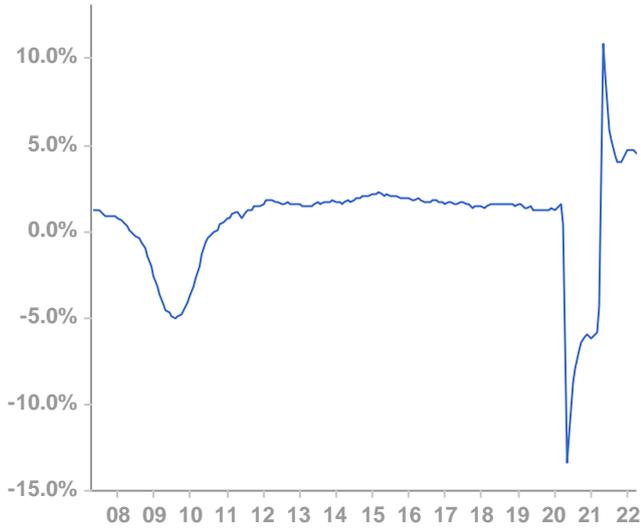
Figure 28: Smoothed US Recession Probabilities



Source: FactSet, FRED Database

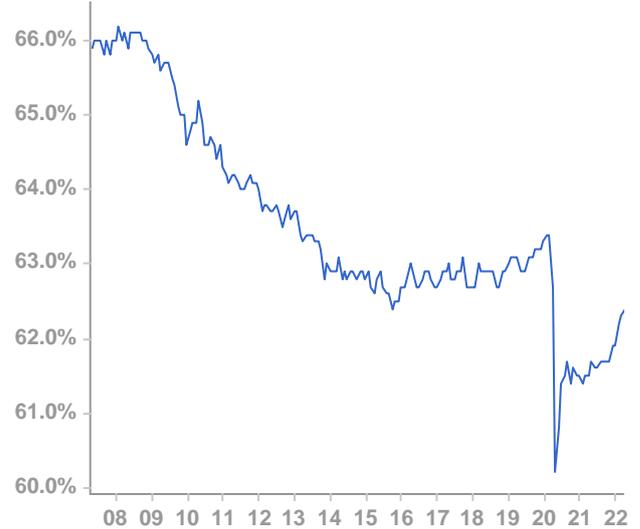
Labor Market Indicators

Figure 29: Payroll Growth (Establishment Survey, % Chg YoY)



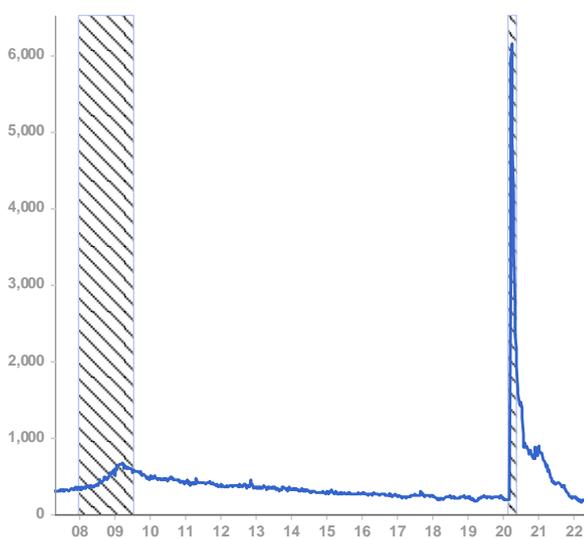
Source: FactSet

Figure 30: Labor Participation Rate (% of Workforce)



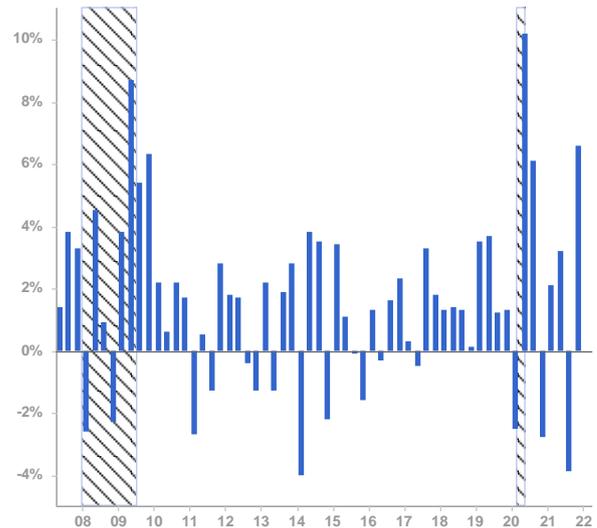
Source: FactSet

Figure 31: Initial Unemployment Claims



Source: FactSet

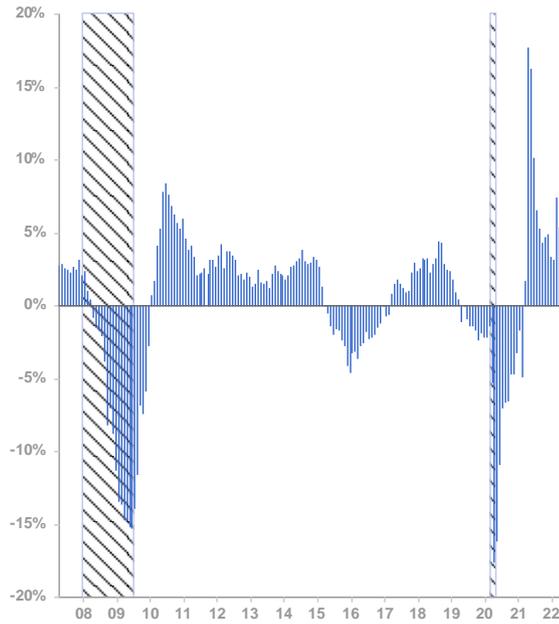
Figure 32: Non-Farm Productivity (% Chg YoY)



Source: FactSet

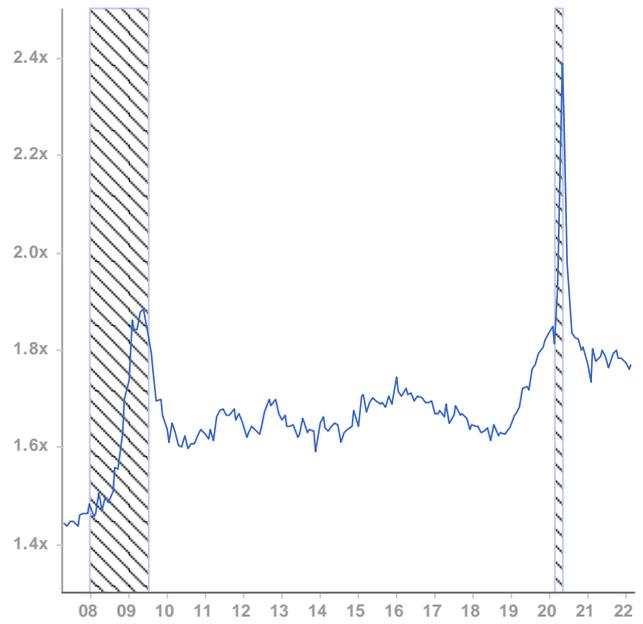
Production and Business Activity Indicators

Figure 33: Industrial Production (% Chg YoY)



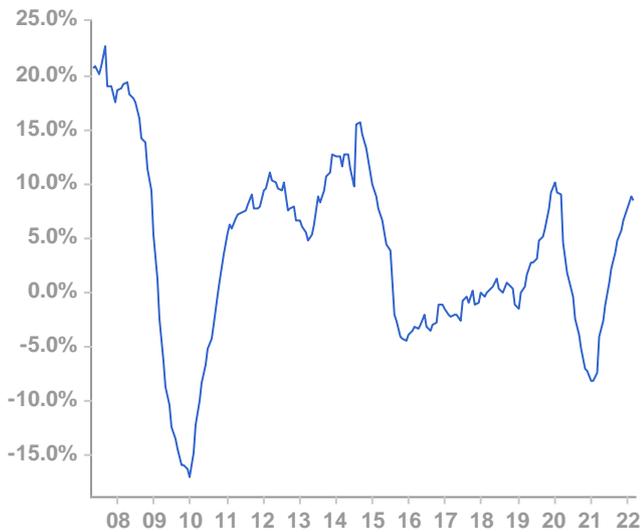
Source: FactSet

Figure 34: US Inventory to Shipment Ratio



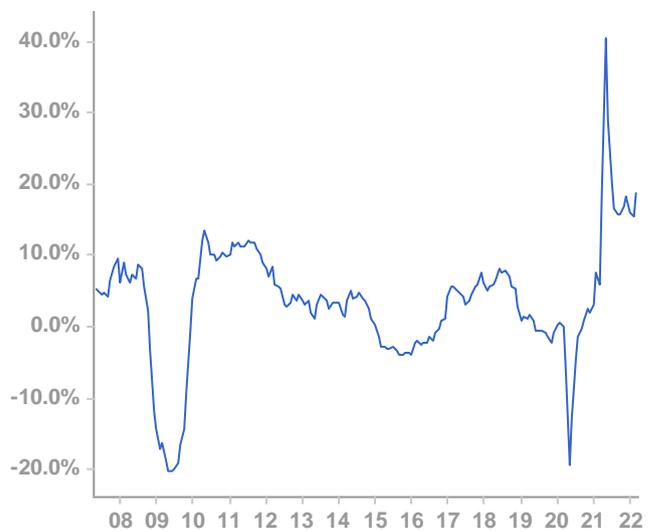
Source: FactSet

Figure 35: Unfilled Orders (% Chg. YoY)



Source: FactSet

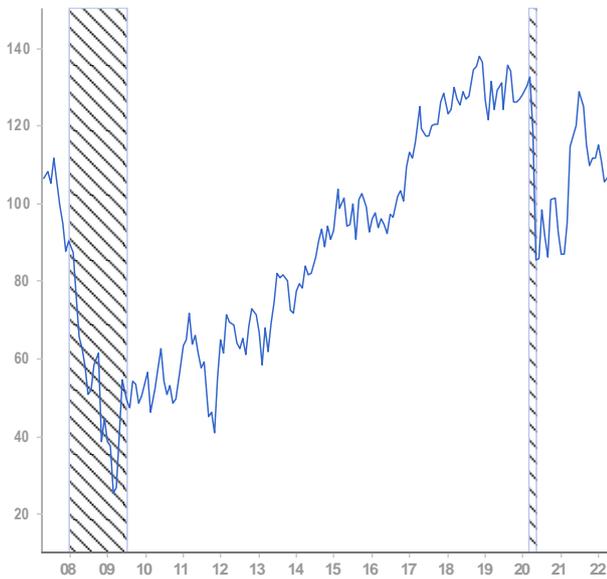
Figure 36: Business Sales (% Chg. YoY)



Source: FactSet

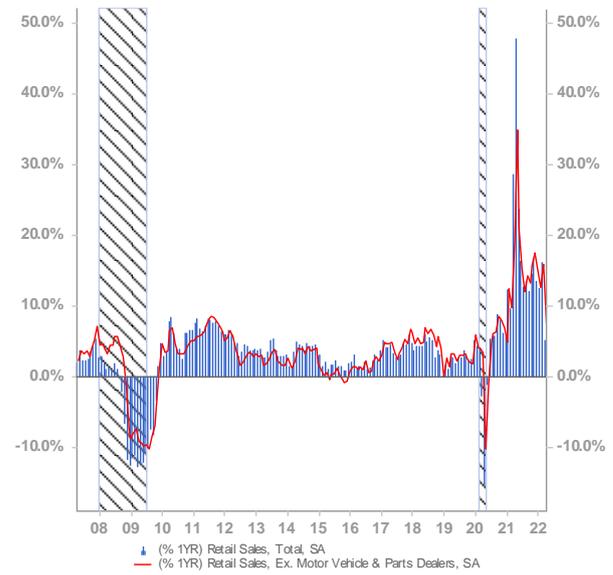
Consumer and Household Activity Indicators

Figure 37: University of Michigan Consumer Sentiment



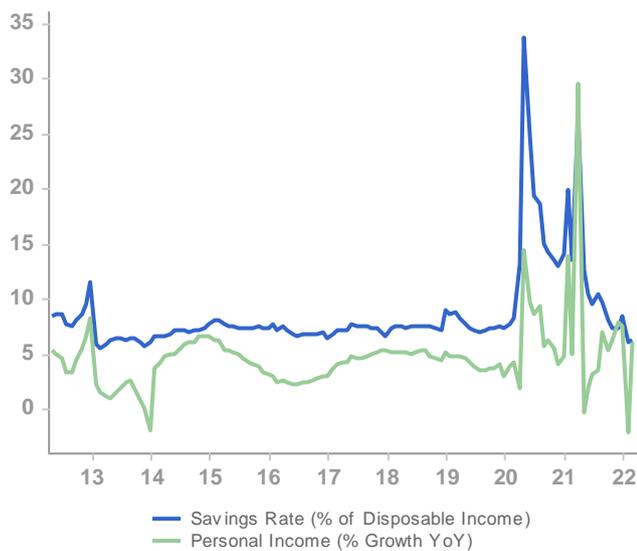
Source: FactSet

Figure 38: Retail Sales



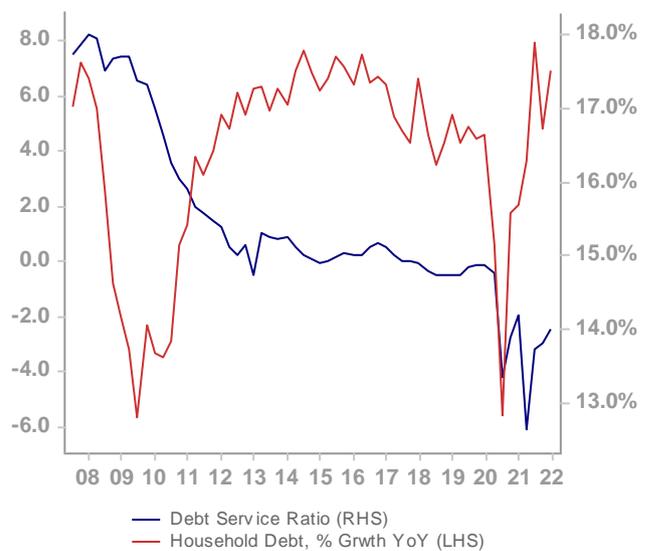
Source: FactSet

Figure 39: Personal Income and Savings Rate



Source: FactSet

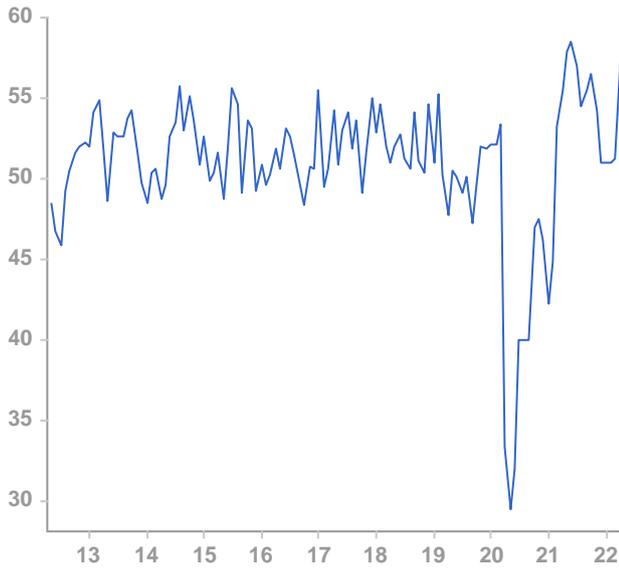
Figure 40: Household Debt



Source: FactSet

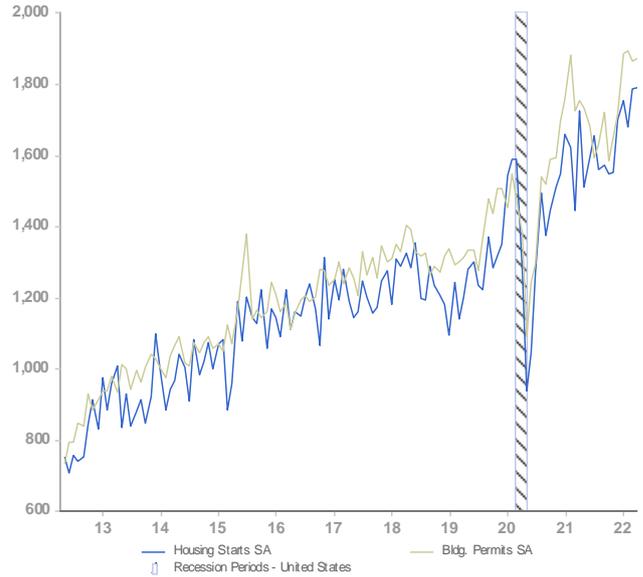
## Housing and Construction Indicators

Figure 41: Architecture Billings Index



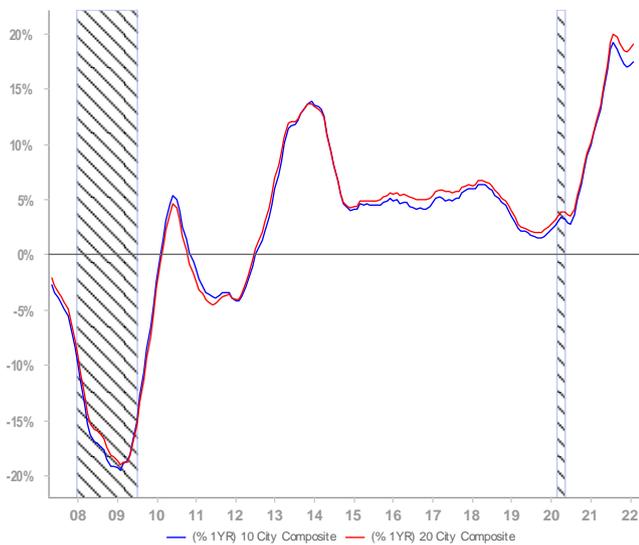
Source: FactSet

Figure 42: Housing Starts and Building Permits



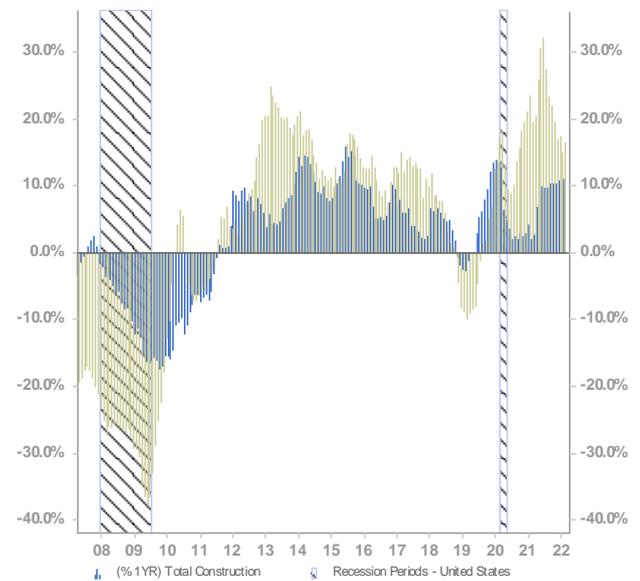
Source: FactSet

Figure 43: Case-Shiller 20-City & 10-City Index, % Chg YoY



Source: FactSet

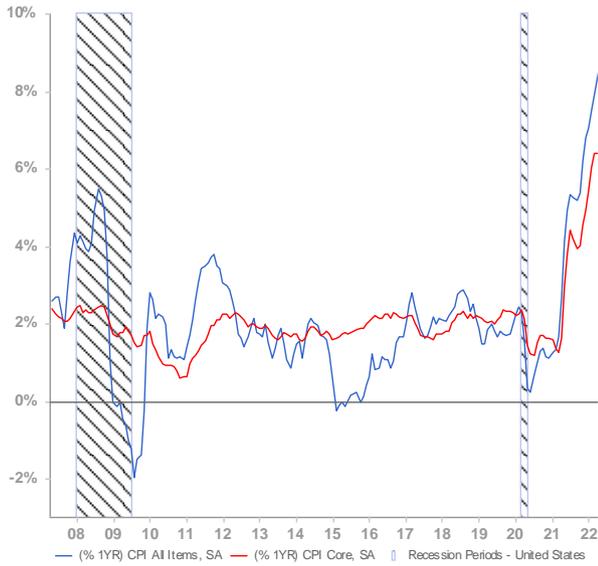
Figure 44: Private and Total Construction (% Chg YoY)



Source: FactSet

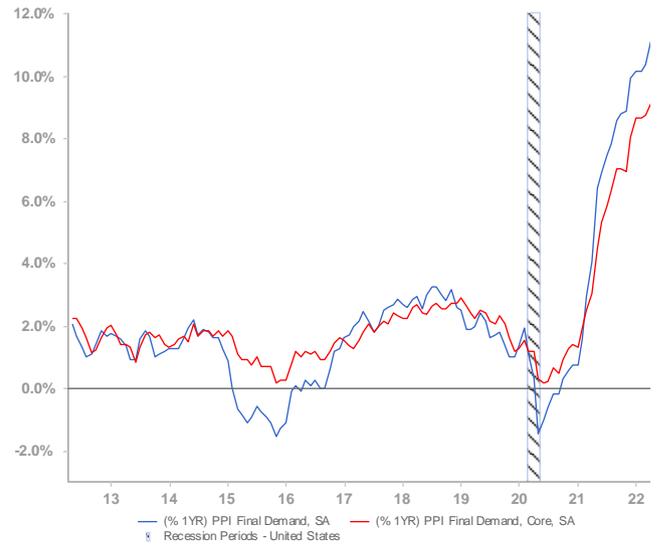
Price Indicators

Figure 45: Consumer Price Index



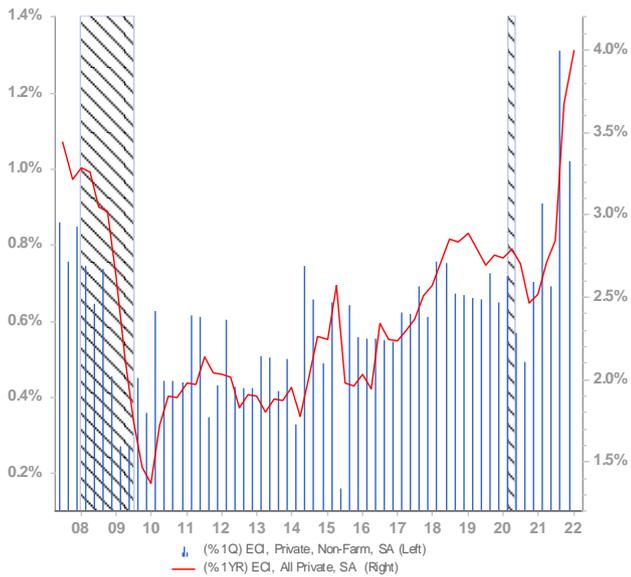
Source: FactSet

Figure 46: Producer Price Index



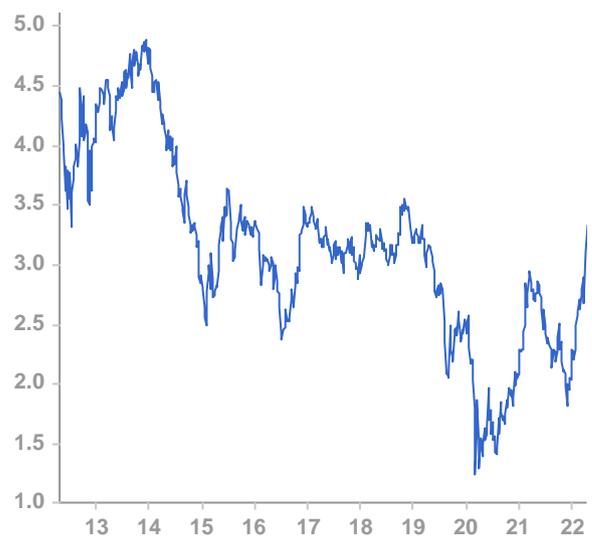
Source: FactSet

Figure 47: Employment Cost Index



Source: FactSet

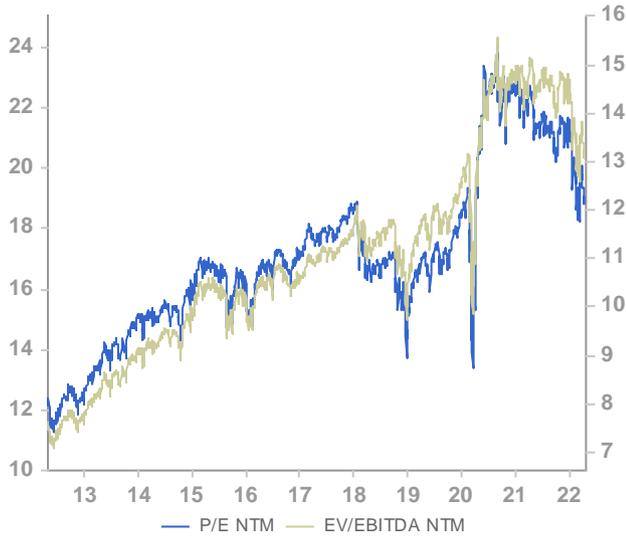
Figure 48: 10-Year, 5-Year Forward Inflation Expectations



Source: FactSet

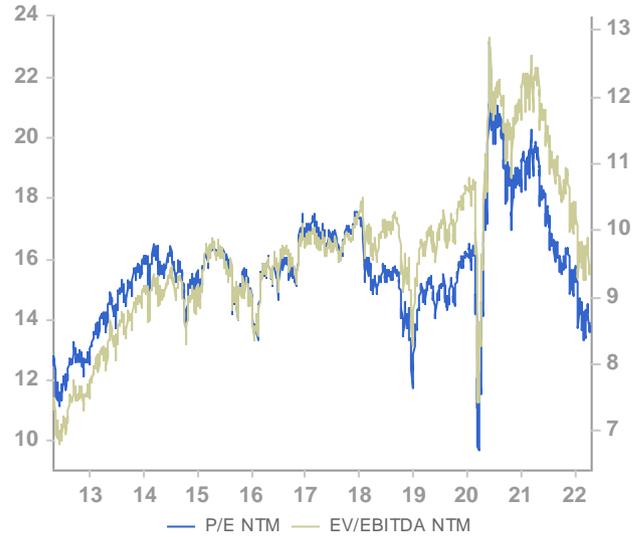
## Valuation Indicators

Figure 49: S&P 500 P/E (LHS) & EV/EBITDA (RHS)



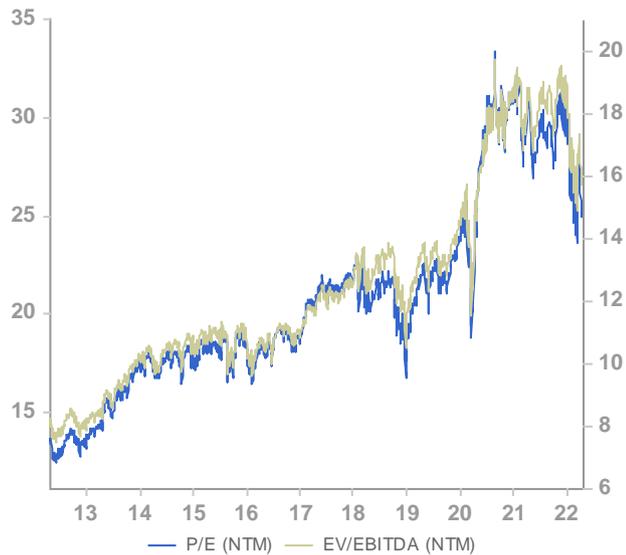
Source: FactSet

Figure 50: S&P Midcap 400 P/E (LHS) & EV/EBITDA (RHS)



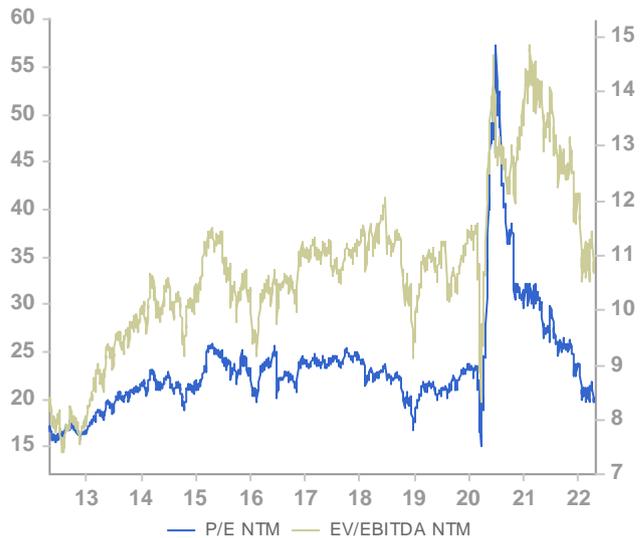
Source: FactSet

Figure 51: Nasdaq 100 P/E (LHS) & EV/EBITDA (RHS)



Source: St. Louis Federal Reserve, FRED Database

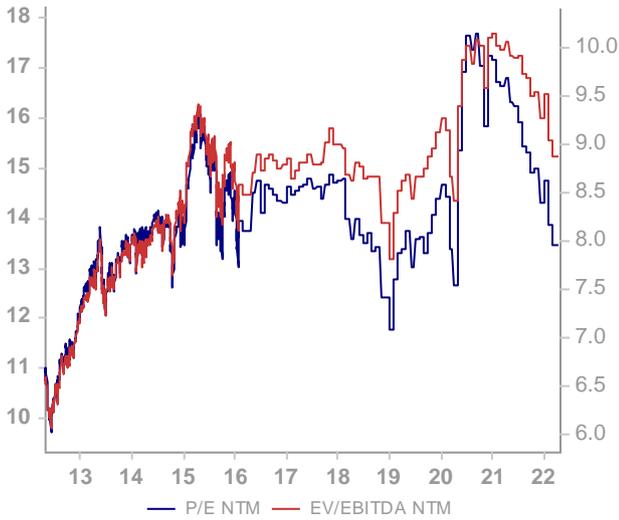
Figure 52: Russell 2000 P/E (LHS) & EV/EBITDA (RHS)



Source: St. Louis Federal Reserve, FRED Database

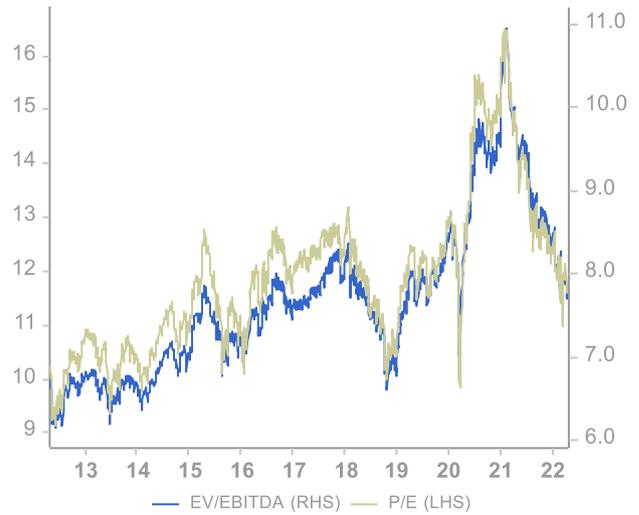
Valuation and Volatility Indicators

Figure 53: Intl Developed P/E (LHS) & EV/EBITDA (RHS)



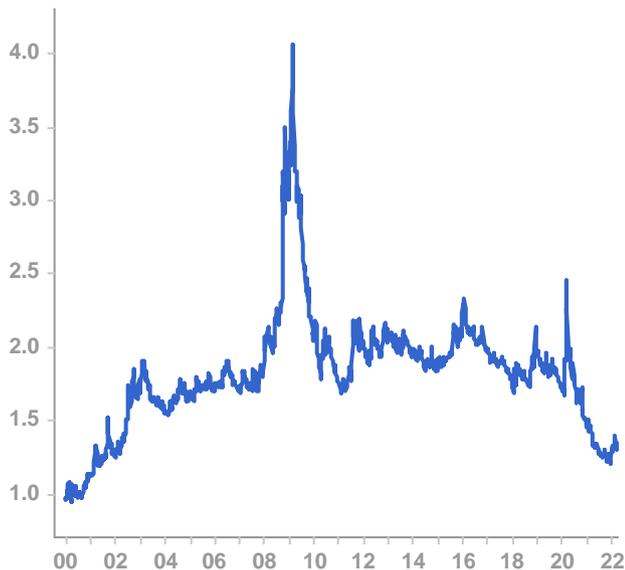
Source: Robert Shiller, Yale University, Rockingstone Advisors, Standard & Poor's

Figure 54: Emerging Markets P/E (LHS) & EV/EBITDA (RHS)



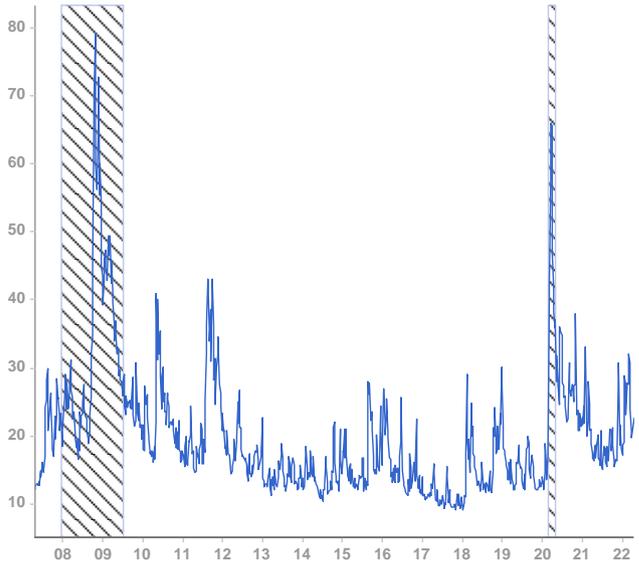
Source: Robert Shiller, Yale University, Rockingstone Advisors, Standard & Poor's

Figure 55: S&P 500 Dividend Yield



Source: FactSet

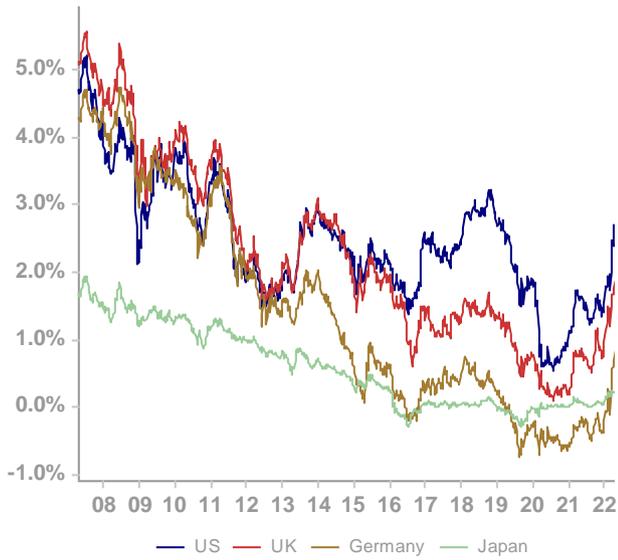
Figure 56: CBOE Volatility Index



Source: FactSet

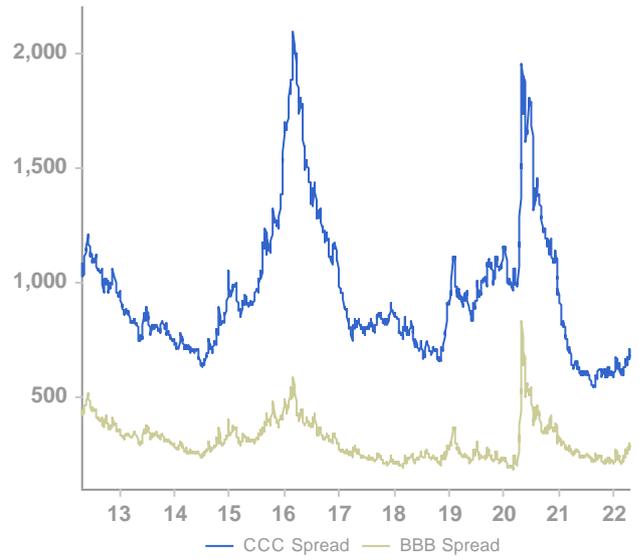
Bond Market Indicators

Figure 57: 10-Year Global Bond Yields



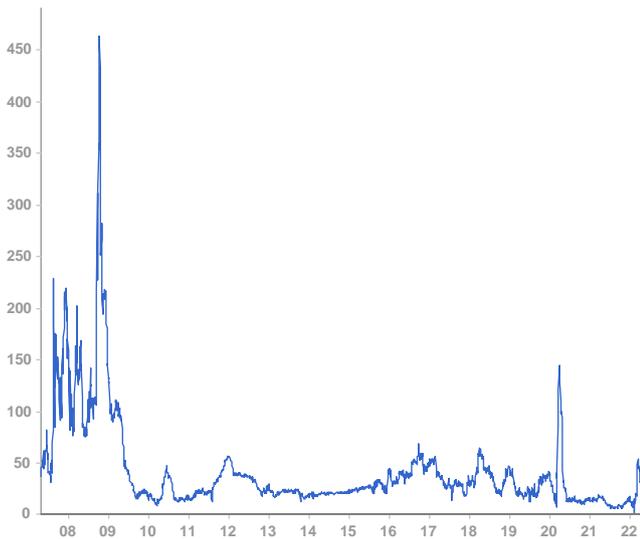
Source: FactSet

Figure 58: CCC and BBB Spreads (Option Adjusted)



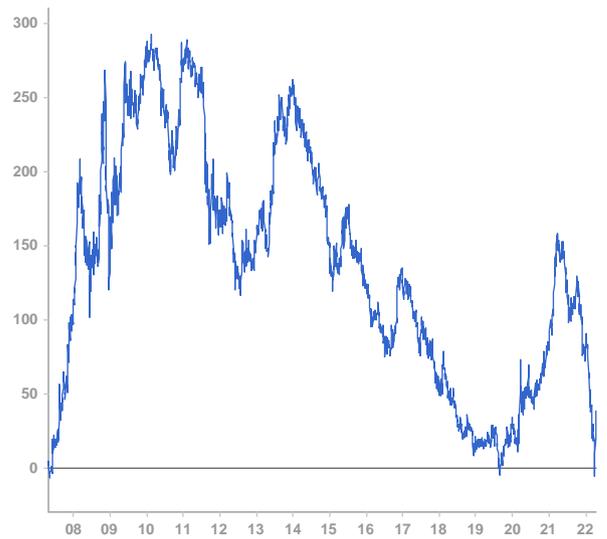
Source: FactSet

Figure 59: TED Spread (bps)



Source: FactSet

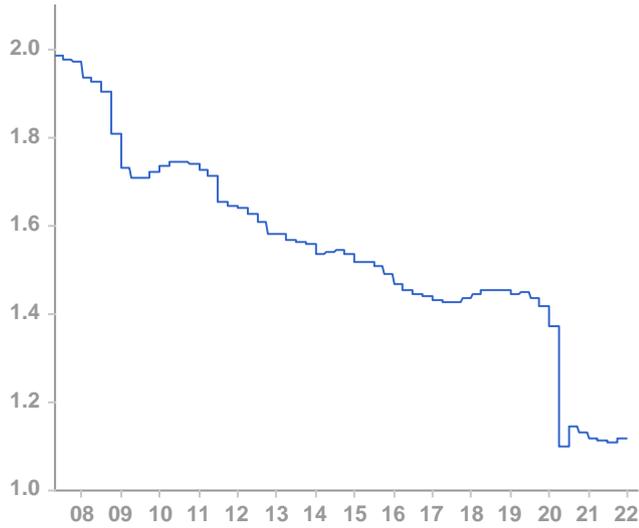
Figure 60: 10-Year Minus 2-Year Treasury



Source: FactSet

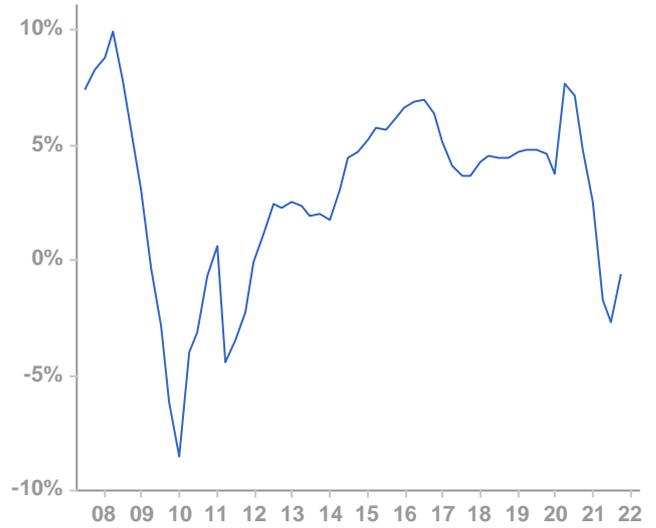
Liquidity and Other Indicators

Figure 61: Velocity of M2 Money Stock



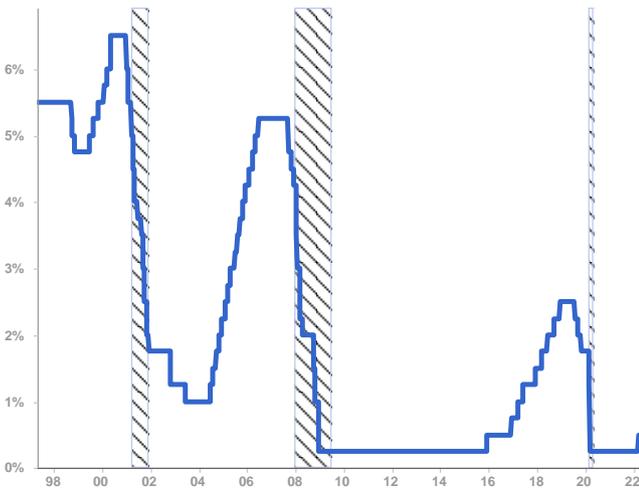
Source: FactSet

Figure 62: Loan Growth (Non-Financial, Private Sector)



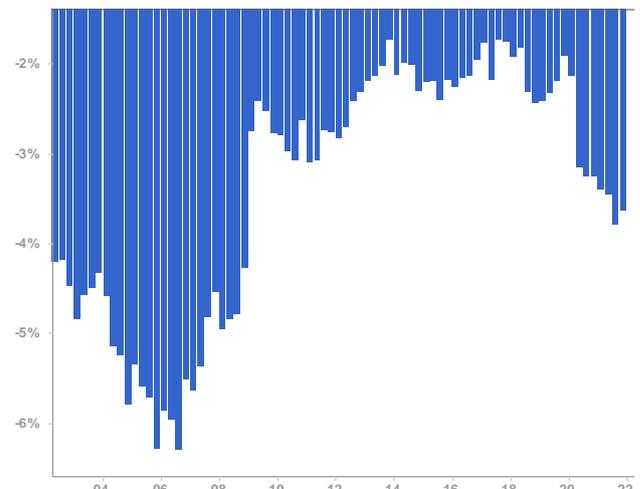
Source: FactSet

Figure 63: Fed Funds Target Rate



Source: St. Louis Federal Reserve, FRED Database

Figure 64: Current Account Deficit (as % of GDP)



Source: St. Louis Federal Reserve, FRED Database

# Appendix

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## 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 March 31, 2022; most other prices and yields are as of April 21, 2022.

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.

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[eric@rockingstoneadvisors.com](mailto:eric@rockingstoneadvisors.com)

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

<sup>ii</sup> 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.

<sup>iii</sup> 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.

<sup>iv</sup> 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.

<sup>v</sup> 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.

<sup>vi</sup> Commodity performance charts depict Precious Metals (DBP ETF), Base Metals (DBB ETF), Oil (DBO ETF), and Agriculture (DBA ETF) price change.