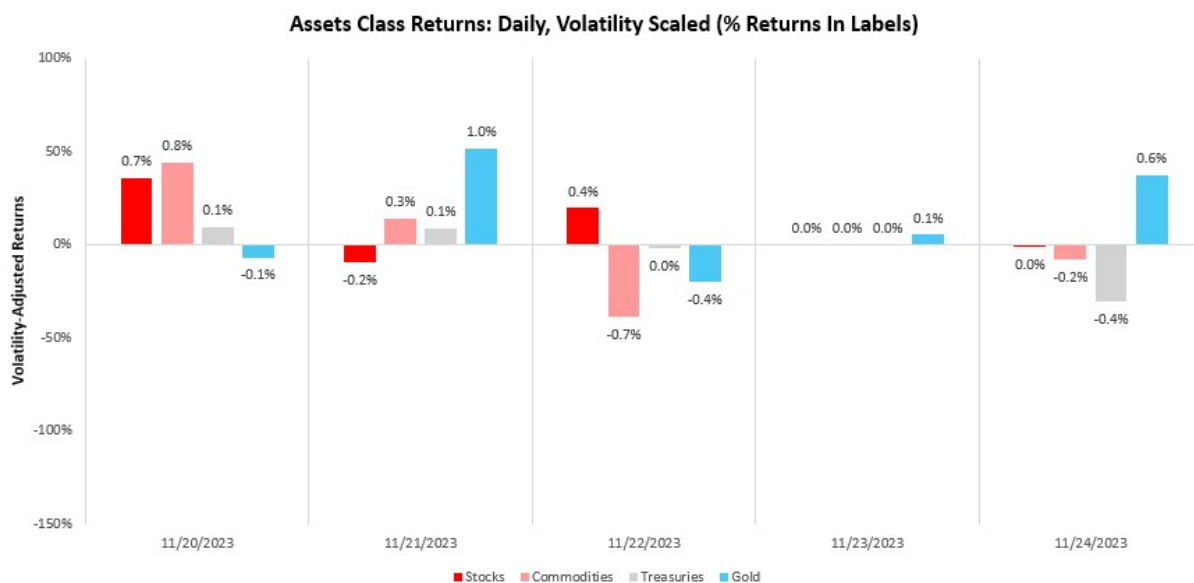


Prometheus ETF Portfolio

Welcome to Prometheus ETF Portfolio. The Prometheus ETF Portfolio aims to allow everyday investors to access an investment solution that combines active macro alpha, passive beta, and strict risk control, all in an easy-to-follow, low-turnover solution. We aim to achieve strong risk-adjusted returns relative to cash, with limited capital drawdowns in depth and duration. We do this in a highly accessible package, which rotates between five highly liquid ETFs, readily available to any investor with a brokerage account. Without further ado, let us dive into our assessment of macroeconomic conditions:

- **Nominal activity and liquidity conditions remain elevated, supporting markets across the board.**
- **While levels of activity remain resilient, a pullback has begun in the manufacturing sector, consistent with the tightening of monetary policy, and conditions remain in place for this to continue.**
- **This divergence between prospective cyclical growth conditions and current market conditions is a cause for caution. Nonetheless, this divergence is in its nascent stages, and markets remain unimpacted. If this condition changes, so will our positioning.**
- **In this context, our long-only Prometheus ETF Portfolio is unchanged from last week and is long stocks (SPY: 16%), commodities (DBC: 19%), Gold (IAU: 22%), and cash (BIL: 43%).**
- **Our long/short Prometheus ETF Portfolio is unchanged from last week and is long stocks (SPY: 15%), commodities (DBC: 19%), Gold (IAU: 21%), and short treasuries (IEF: -53%).**

Let's dive into the data driving our assessment before moving on to positioning. We begin by examining the path of asset price returns over the last week:



Over the last week, gold showed the smoothest path of returns, rising on three out of four trading days. A balanced mix of assets showed positive performance over this period relative to any particular asset

class, indicating no major shifting in growth and inflation pricing. Additionally, economic data momentum remained roughly flat, neither surprising nor disappointing markets significantly:

Economic Momentum: Economic Surprises vs Asset Class Performance

Asset Class Performance By Economic Surprise Percentile				
	0-25%	25%-50%	50%-75%	75%-100%
Stocks	-8%	2%	12%	30%
Commodities	-29%	3%	7%	17%
Bonds	28%	9%	-10%	-3%
Gold	15%	12%	9%	-3%



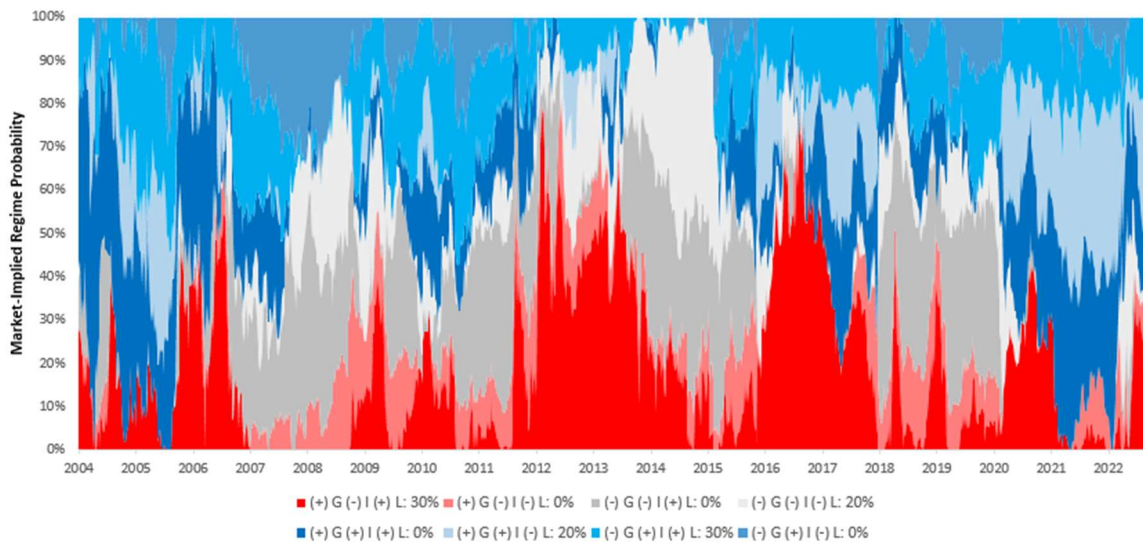
Economic Surprise Percentile: Weekly Trend					
	Nov 01	Nov 08	Nov 15	Nov 22	Nov 23
	70.7%	69.1%	66.1%	63.2%	63.0%

The combination of these conditions this week allowed asset markets to rally in aggregate, with a balanced portfolio of assets up significantly on the weak as markets moved to price in rising liquidity conditions. We show our tracking of market-implied macroeconomic regime probabilities below, which reflect the aforementioned dynamic:

Prometheus Market Regime Probabilities

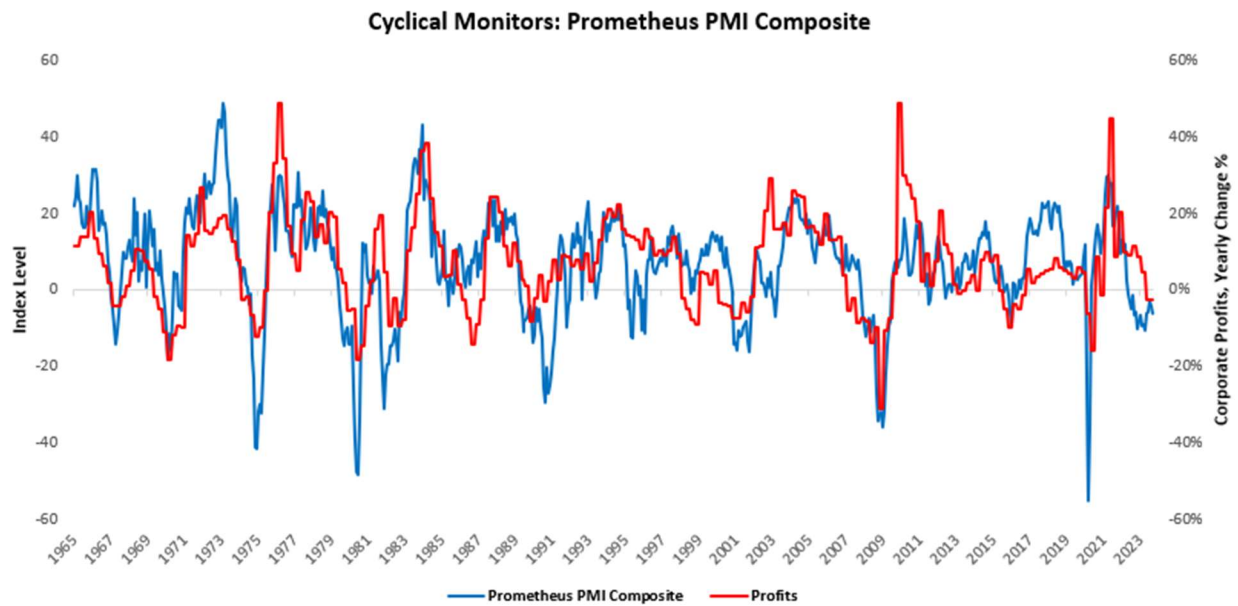
Probability %	(+) G (-) I (+) L	(+) G (-) I (-) L	(-) G (-) I (+) L	(-) G (-) I (-) L	(+) G (+) I (+) L	(+) G (+) I (-) L	(-) G (+) I (+) L	(-) G (+) I (-) L
	34.3%	0.0%	0.0%	20.4%	2.0%	17.3%	26.0%	0.0%

Regime Probabilities: Recent History



Currently, our market-implied regime probabilities show that liquidity remains the dominant impulse in asset markets. This liquidity impulse has been reflected in the bid that we have seen across asset markets. While stable nominal growth conditions and elevated liquidity have kept assets bid, we see signs emerging that the typical pass-through of monetary tightening to weaker economic activity has begun, particularly in the manufacturing sector. We highlight our tracking in the following sections.

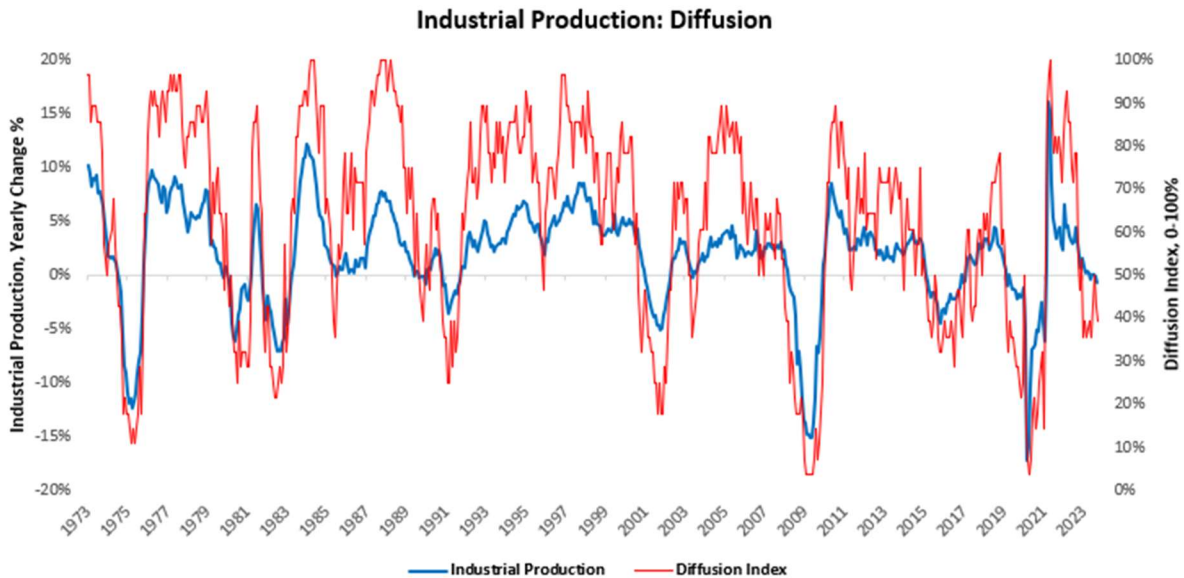
As is typical during most cycles, barometers of manufacturing sentiment contracted as the tightening cycle began, suggesting pressures on manufacturing activity were likely ahead:



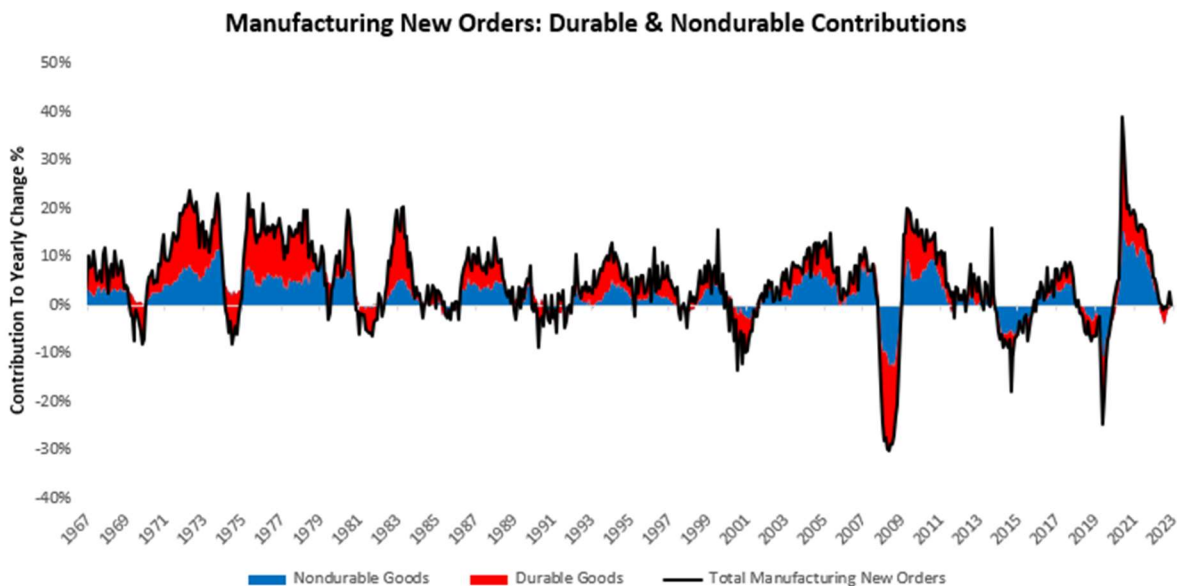
While PMI activity is not actual spending in the economy, it typically offers strong cyclical insight into conditions in the manufacturing sector, which are an integral part of production and profitability economy-wide. As the outlook for purchasing managers remained weak, sales for manufacturers decelerated and are now flirting with contraction. This shrinking pool of sales has also created significant pressures on manufacturing profits, which are likely to move into sustained contraction in coming quarters:



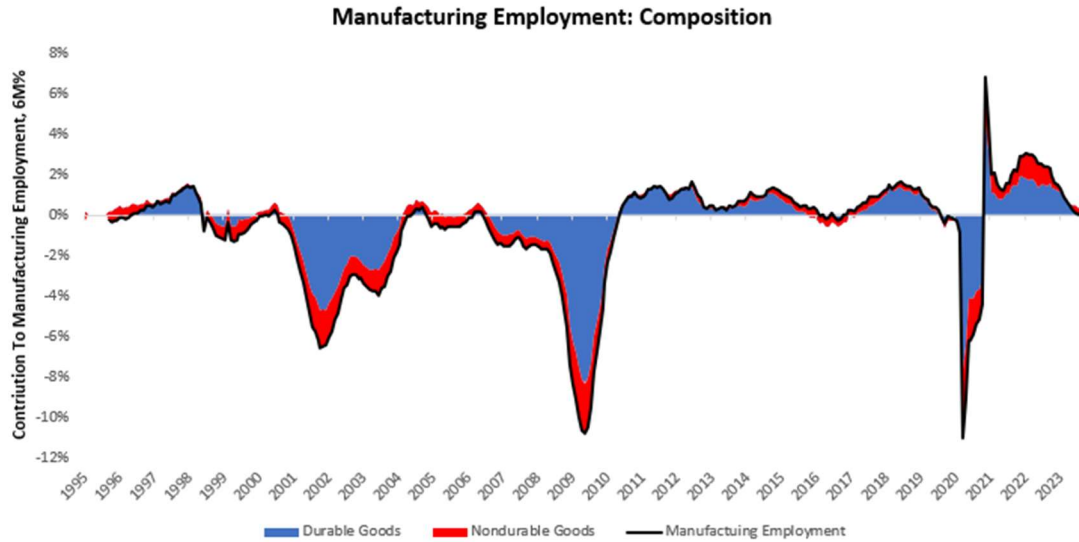
These declines in nominal sales have resulted in falling production. Below, we show how industrial production has declined, along with the diffusion of the subcomponents.



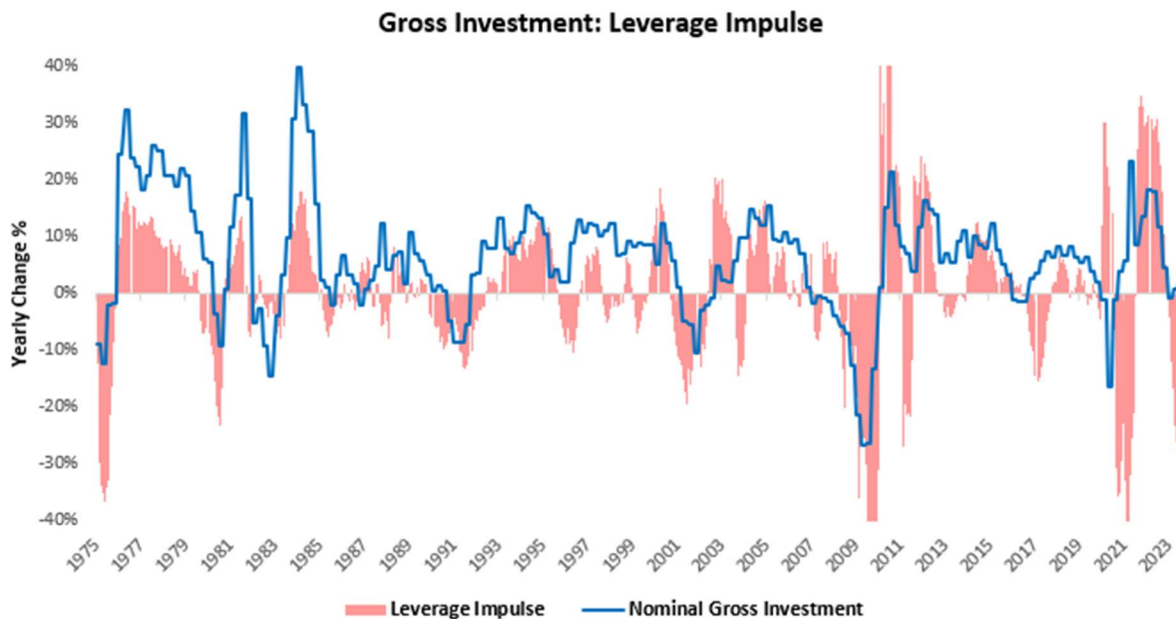
As shown above, approximately 60% of industries show contracting production versus one year prior. These broad-based contractions in production activity are typically resilient in that ongoing weakness becomes self-perpetuating. As such, there remains a strong likelihood that this weakness will continue. This weakness also comes from weak manufacturing orders, which remain consistent with weak PMI readings:



As shown above, nominal manufacturing orders are now flirting with contraction, suggesting significant pressures. These pressures are coming primarily from the nondurable goods sector. Furthermore, these sales, production, and profit pressures have begun to show themselves in employment data as well:



Above, we show how manufacturing employment has moved into contractionary territory over the last six months. This move remains a nascent one, but the pressures remain in place for this to extend itself. These pressures, while most evident in the manufacturing sector today, continue to present the probability of extending to the broader economy and gross investment:



Above, we show more timely measures of the impact of borrowing and leverage on nominal gross investment in the economy. A pullback has begun, consistent with the tightening of monetary policy, and conditions remain in place for this to continue. Aggregating these dynamics, we think the impacts of the tightening cycle are beginning to show themselves in the data. While manufacturing remains a relatively small portion of overall activity, it is likely that both the volatility of manufacturing and the spread of these conditions mean significant headwinds for growth lie ahead.

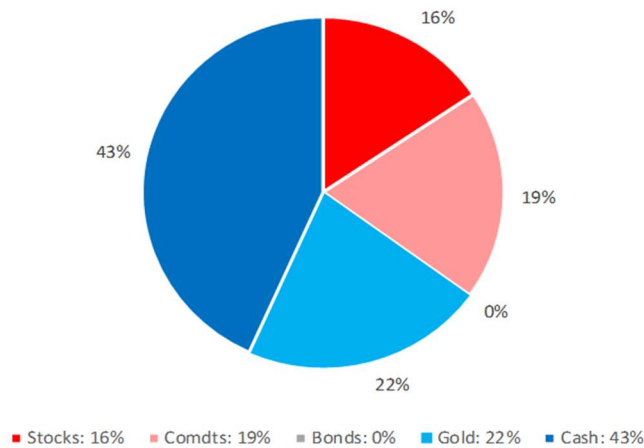
Prometheus ETF Portfolio: Allocations & Risk

In this section, we discuss the position and performance of our systematic allocations. **We primarily focus on our long-only allocations, but from time to time, we will discuss the positions coming from our long/short process.** Heading into next week, our systems are looking to position the long-only Prometheus ETF Portfolio long stocks (SPY: 16%), long commodities (DBC: 19%), flat treasuries (IEF: 0%), long gold (IAU: 22%) with a cash position of 43% (BIL: 43%).

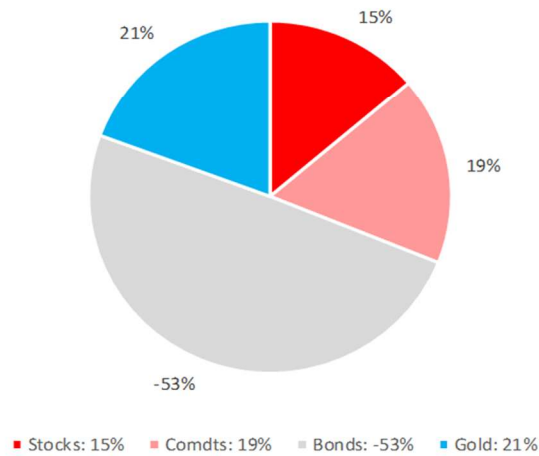
Additionally, our systems are looking to position the long-short Prometheus ETF Portfolio long stocks (15%), long commodities (19%), short treasuries (-53%), and long gold (21%). Short proceeds are invested at a short rate.

Prometheus ETF Portfolio: Allocations

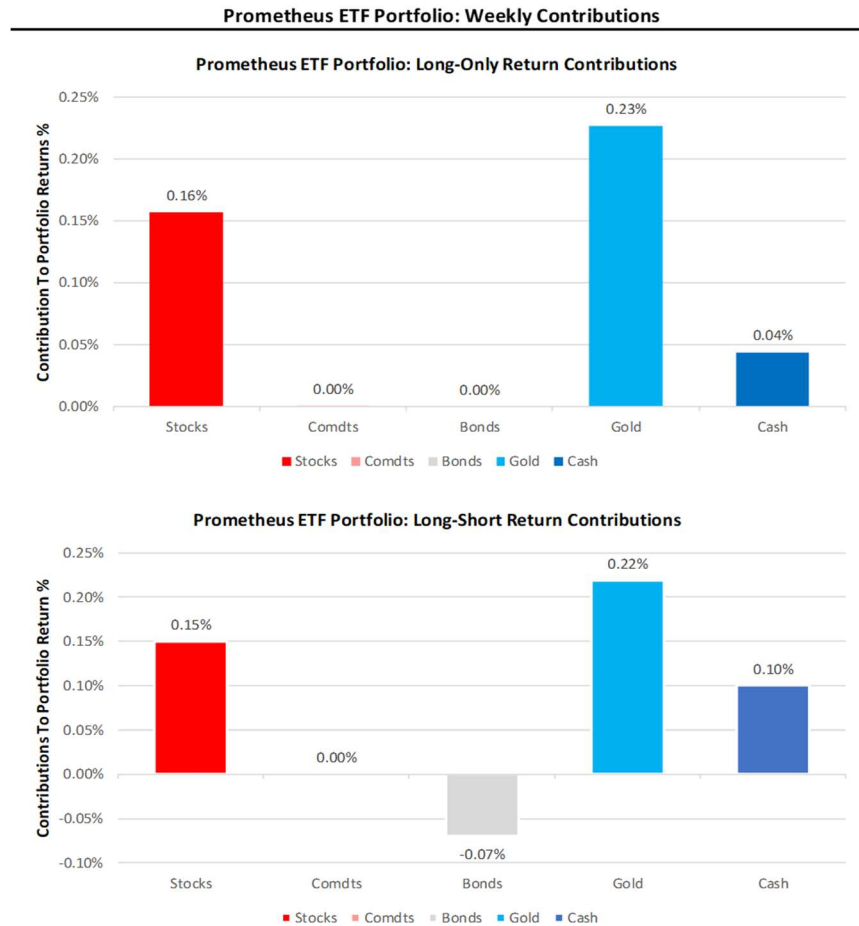
Prometheus ETF Portfolio: Long-Only Allocations



Prometheus ETF Portfolio: Long/Short Allocations



Before we move further into our risk assessment, we examine recent returns on our allocations, as they provide context and also inform our risk management. Over the last week, our long-only Prometheus ETF Portfolio was up 0.43%, driven primarily by equity and gold allocations. Our long/short Prometheus ETF Portfolio was up by 0.40%, driven by equity and gold allocations. We show the contributions to these returns below:

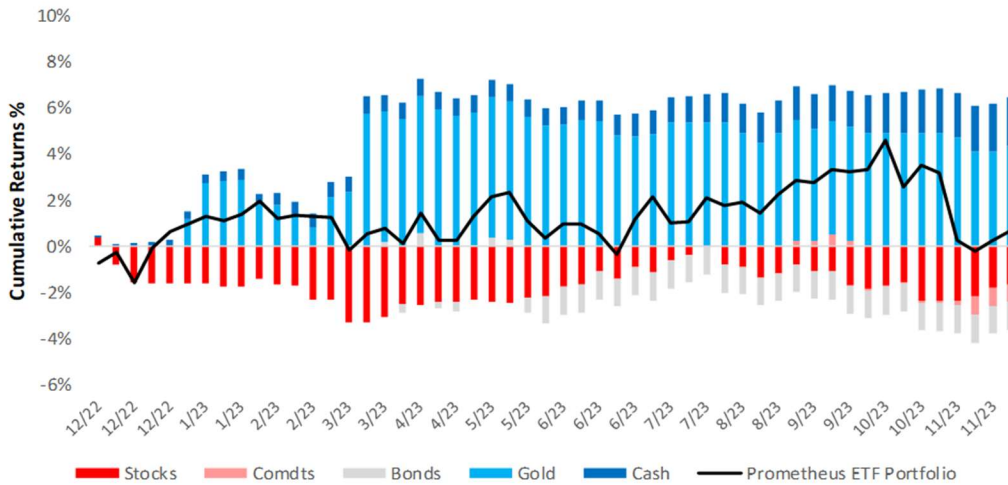


This performance was largely within our range of expectations. The long-only portfolio benefited significantly from timely gold exposure, which was the dominant performer this week. The long-short portfolio was only modestly impacted by losses on Treasury shorts, with equity and gold positions making up.

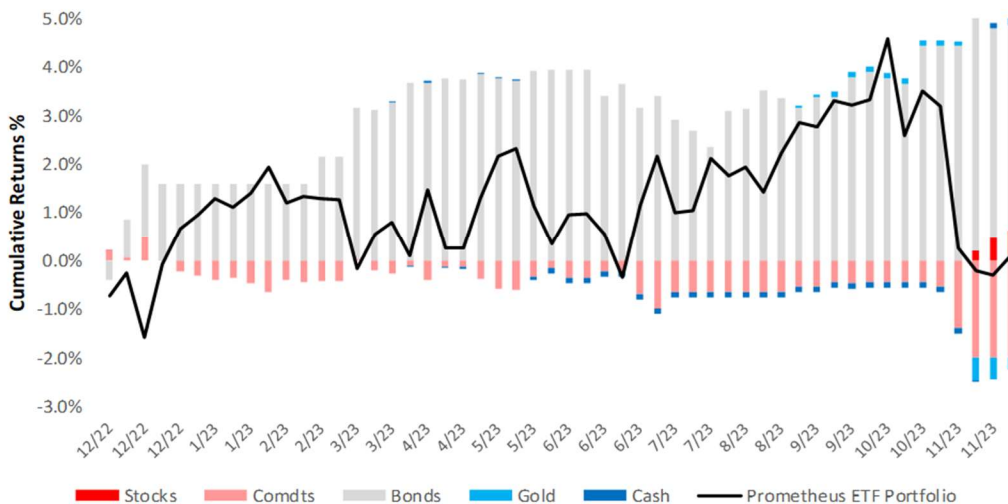
For further context, we zoom out to offer the recent one-year trailing returns on the strategy since these inform our forward-looking risk controls. These include simulated returns as our approach is dependent; as time progresses, the simulated returns will drop off from this tracking. As a cautionary note, we highly recommend not chasing the most successful components of the strategy at any given time. While a single asset may contribute to the majority of over or underperformance at any given time, over long periods of time, our edges have been fairly evenly distributed by asset class. Timing the distribution of performance on these edges is a nontrivial and perhaps dangerous pursuit. With this in mind, we show the recent one-year contributions to performance:

Prometheus ETF Portfolio: Performance, Trailing 1-Year

Prometheus ETF Portfolio: Long-Only, Performance



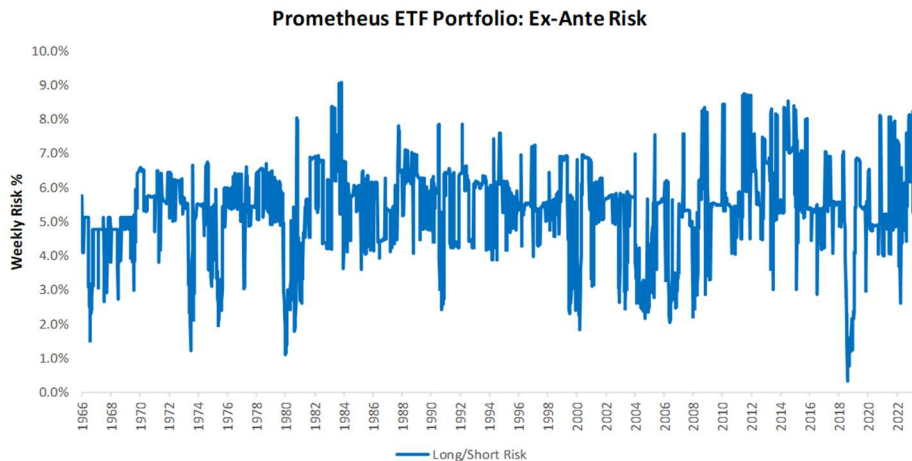
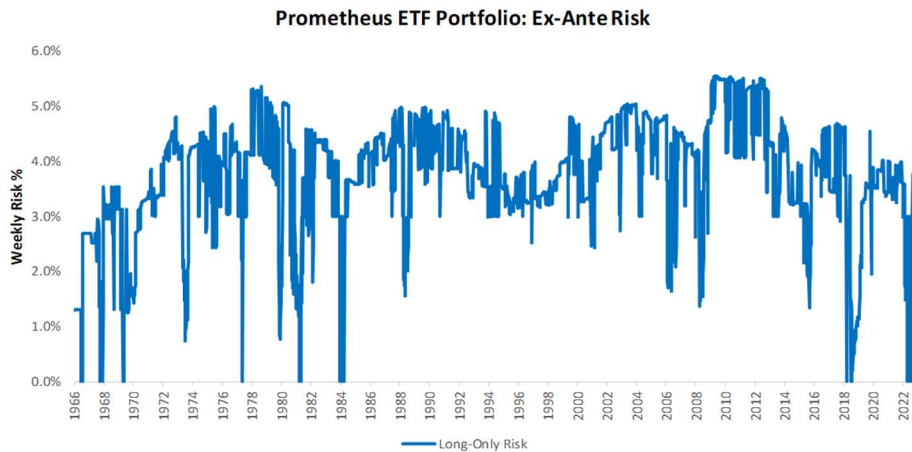
Prometheus ETF Portfolio: Long/Short, Performance



As we can see above, the performance of the long-only strategy has been driven by long positions in gold, which continue to show significant signal strength. The long/short strategy has benefitted from short positions in Treasuries but has suffered as markets recently moved to price in interest rate cuts. Our systems continue to point to value in Treasury shorts.

We now turn to our risk management headed into next week. Heading into next week, we estimate our long-only allocation is running a risk of a loss of 4.0%. Our long/short allocation allocations are running the risk of a 5.1% loss. Recall these risk estimates are multi-standard deviation losses across the portfolio with a zero percent hit rate. We visualize these losses below.

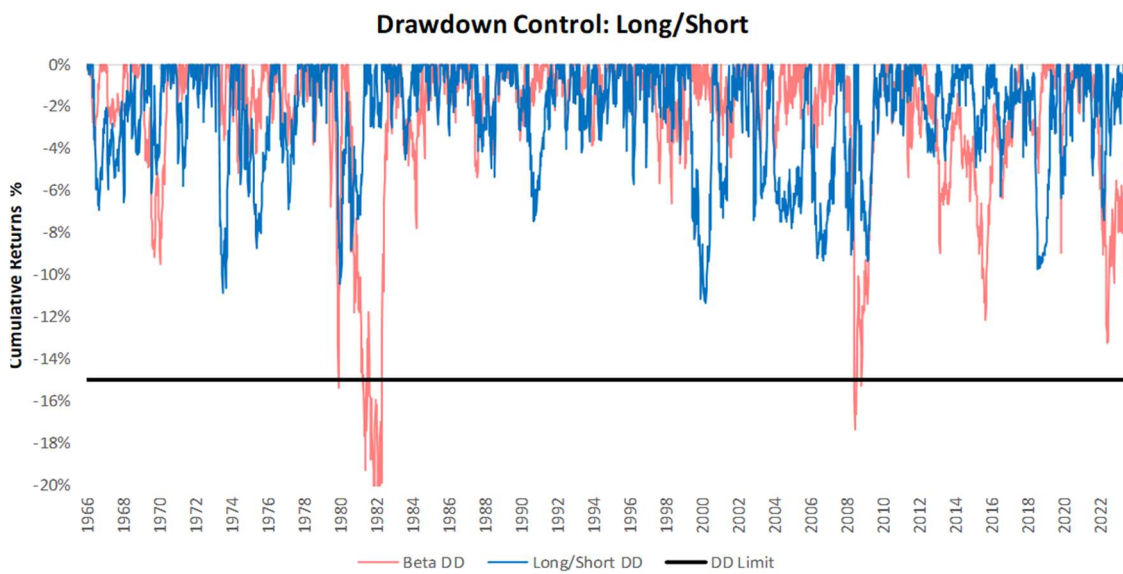
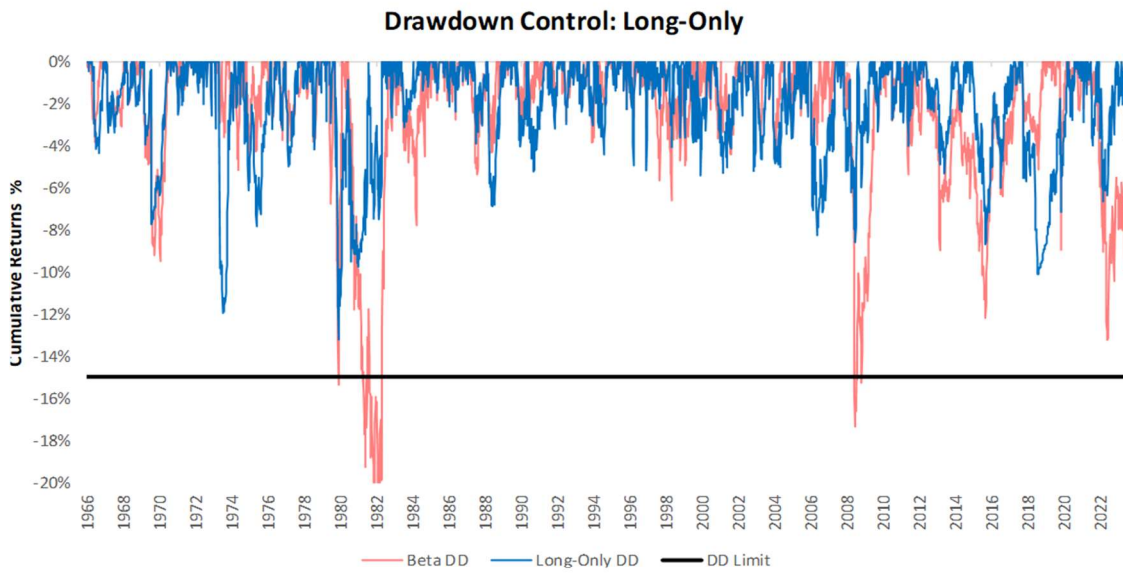
Prometheus Portfolio Risk Control: Ex-Ante Risk Estimates



The purpose of providing these loss numbers is to allow users to adjust their exposures as desired to meet their risk objectives. For those wishing more or less risk, they can scale up or down positions based upon our ex-ante risk assessment. For instance, if our systems are running a 5% risk heading to the next week, but an individual desires a 2.5% risk, they may scale all positions down by 50% ($2.5\%/5.0\%=50\%$) while scaling up their cash by the same amount. The inverse is true for taking on more risk.

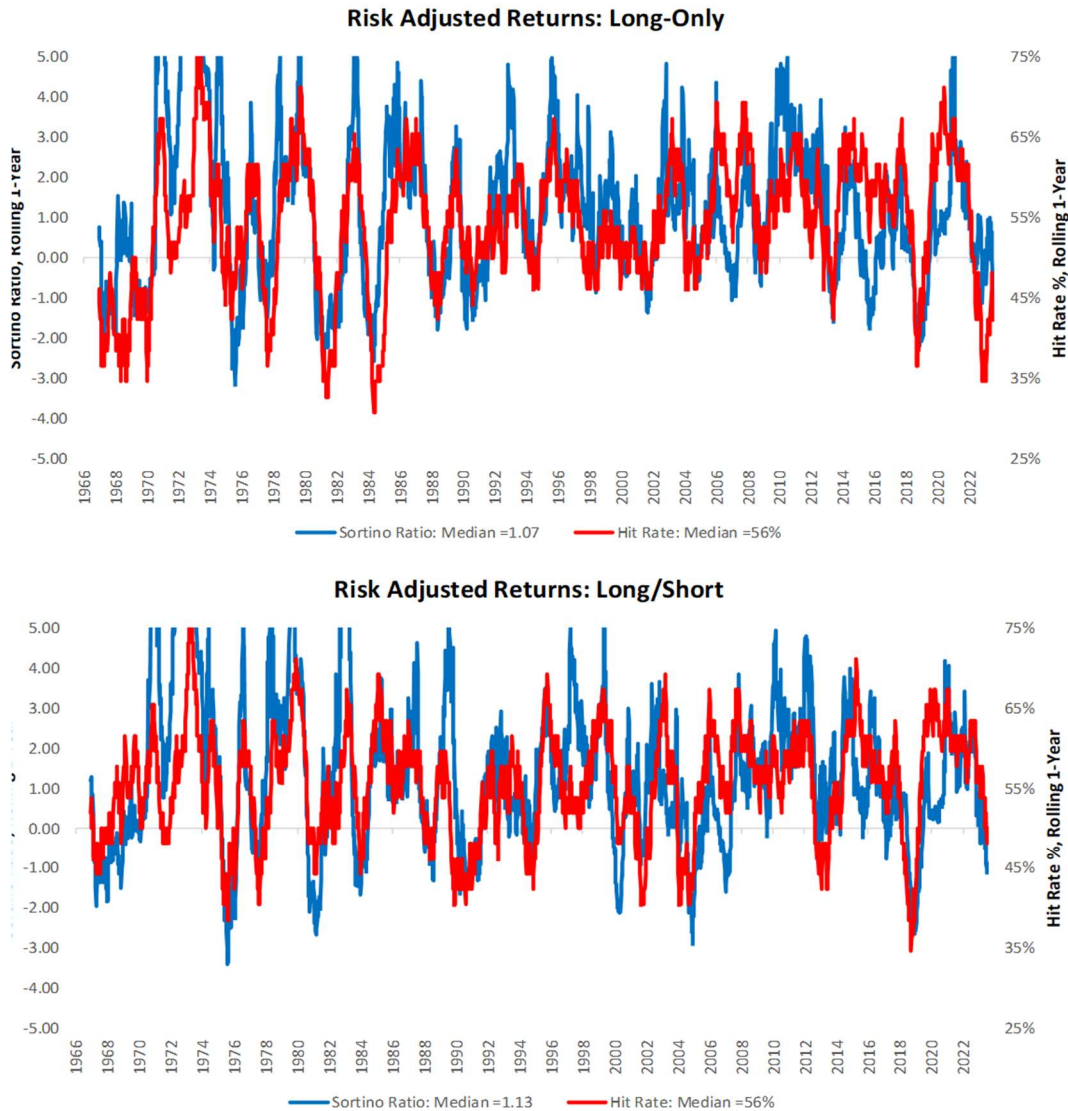
Next, we turn to our current drawdown profile. Currently, our strategy remains well removed from drawdown limits, incurring no need to cut back on risk in order to maintain our drawdown profile for choice. Our long-only strategy is currently at a 2% drawdown (including simulation data), which does not warrant a pullback in risk. Our long/short strategy is currently at a 4.1% drawdown (including simulation data), which may soon warrant some amount of modest risk control:

Prometheus ETF Portfolio: Drawdowns



Next, we turn to our portfolio rolling portfolio hit rates and Sortino ratios to offer an understanding of the recent risk-adjusted measures. As visualized below, these typically have significant variance in the short term but are mean reverting over long periods.

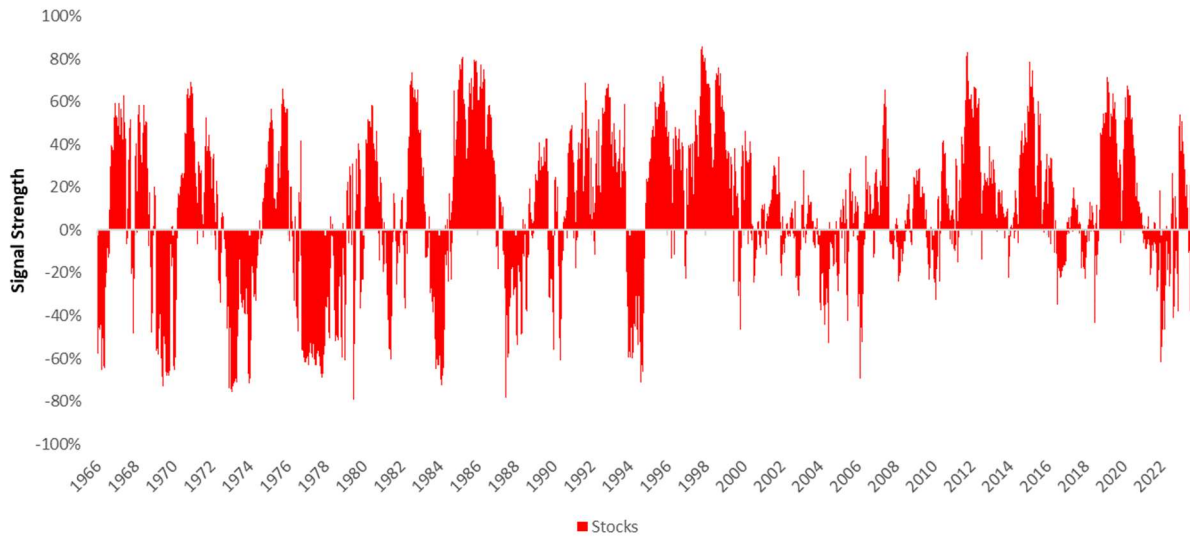
Prometheus ETF Portfolio: Risk-Adjusted Returns



As shown above, our long-only allocations have recently seen a decline in hit rates at the portfolio level, though those hit rates have begun to rebound, as would be consistent with mean-reverting hit rates. Importantly, drawdowns have been well-controlled despite the drop-off hit rates. Our long/short process continues to see modest hit rates, though they have declined during the recent past but remain well within our expectations.

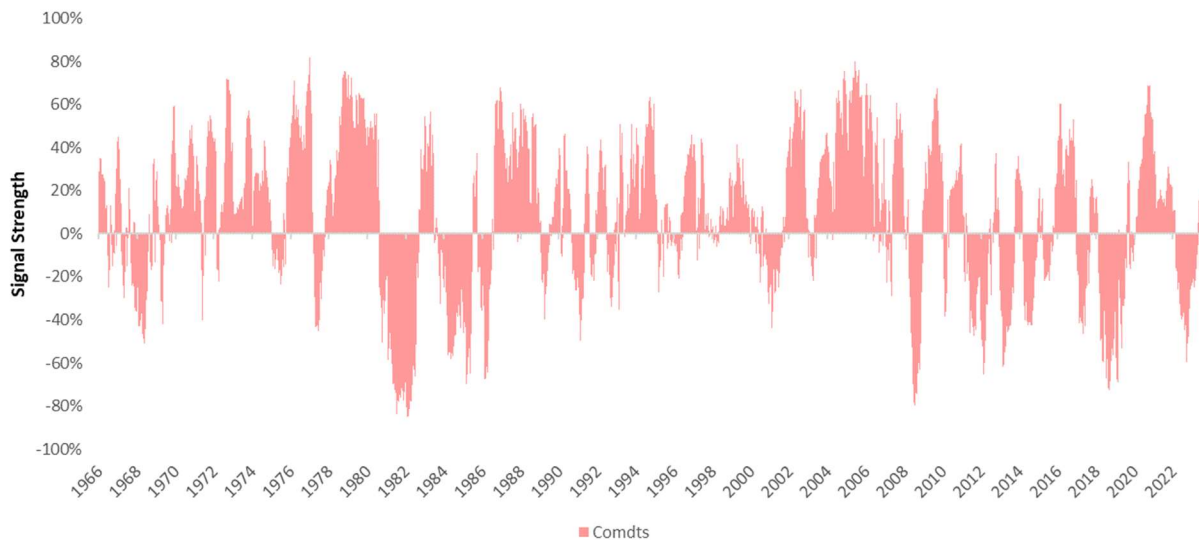
Finally, we offer our alpha signal composites heading into next week to offer compositional insight. ***Stocks look very modestly attractive after a brief short signal. The worsening of economic data, alongside richening valuations, continues to compress aggregate signal strength to very low levels:***

Signal Composite: Stocks



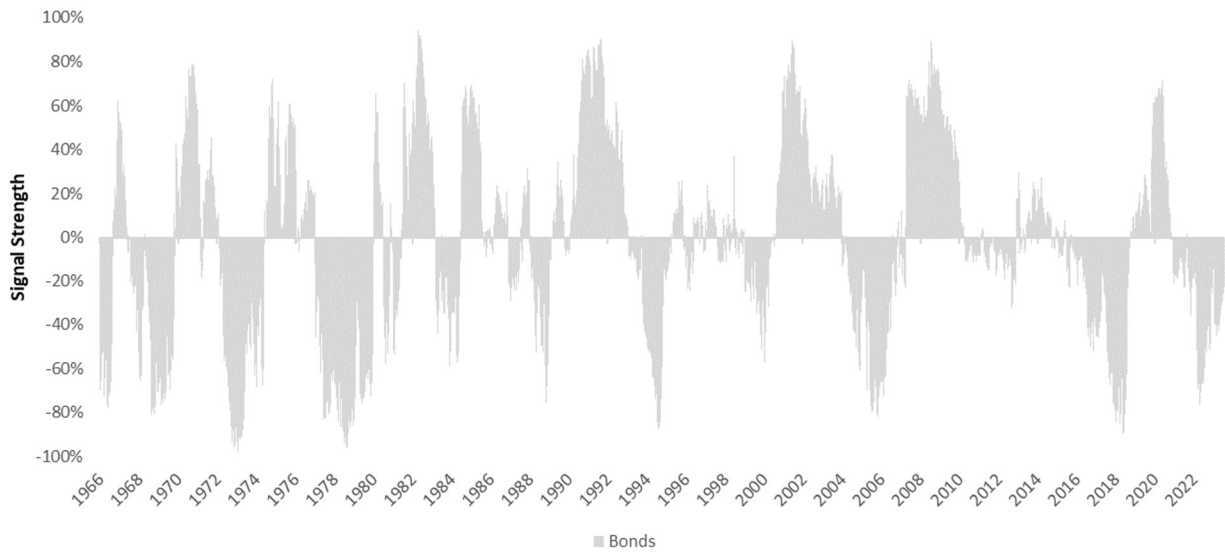
Commodities show positive signals as well, though recent choppiness in performance has led to signal moderation:

Signal Composite: Comdts



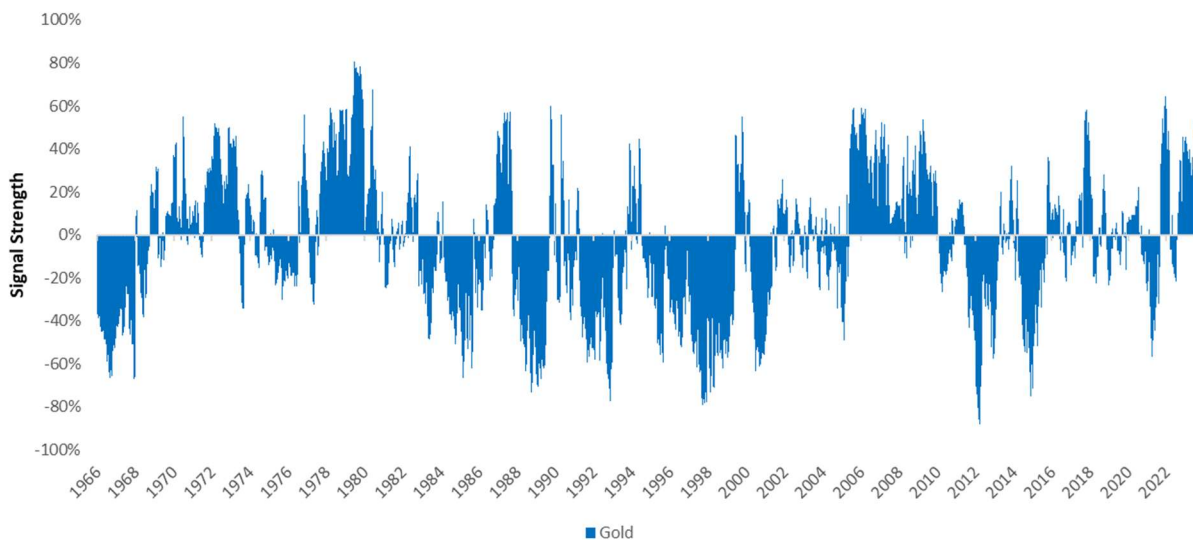
Bonds remain rich relative to other assets by our measures, though the degree of mispricing has declined in recent months:

Signal Composite: Bonds



Finally, in an environment of elevated monetary liquidity, elevated valuations in stocks and bonds, and elevated inflation levels, gold continues to offer the most value:

Signal Composite: Gold



Overall, we think nominal activity liquidity levels remain resilient; however, growth conditions have begun to show the nascent impacts of monetary tightening. Our signals have moved modestly to reflect these outcomes, but until market dynamics change, it is best not to fight the tides of liquidity. Until next time.

DISCLAIMER: *All information, views, and opinions provided herein are for informational purposes only and should not be construed or relied upon as investment advice, an offer to sell, or a solicitation for any form of investment. The information contained in this website is the most recent information available to us (except otherwise noted); however, all of the information herein is subject to change without notice. Certain information included in this website is based on data obtained from sources considered to be reliable; however, no representation is made with respect to the accuracy or completeness of such data. All opinions, estimates, and forward-looking statements, including any market forecasts or projections, involve a number of assumptions that may not prove to be valid. Past performance does not guarantee future results. The value of investments will fluctuate, and a loss of principal may occur. Any mention of an investment decision is intended only to illustrate our investment approach. Prometheus Investments Research LLC will not be held liable for any decisions made using its information content.*