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Maveric

Leadoff Morning Note

Daily

Darius Dale

Darius Dale, Founder & CEO

Thursday, November 2, 2023

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Executive Summary: Thursday, November 2, 2023

1. Yesterday Fed Chair Powell confirmed our expectation the FOMC would signal very little about the outlook for monetary policy and, in doing so, implicitly confirm our view that the institution is done hiking the policy rate. This effectively completes the Fed's transition to using TIME as the primary monetary policy tool, rather than the POLICY RATE or BALANCE SHEET ROLL OFF, which is likely to continue in the background for quite some time.
2. Asset markets have rallied sharply since Tuesday's close ($\$SPY$ +2%; $\$TLT$ +4%) on the heels of the FOMC and dovish surprise in the Q4 Quarterly Refunding Announcement by the US Treasury – which we also accurately presaged thanks to our deep understanding of monetary plumbing dynamics.
3. Our medium-term quantitative risk management signals currently see an extreme underweight in stocks by discretionary investors – the likes of which is typically only observed at major bear market bottoms in the stock market. My ~15yrs of experience on global Wall Street lead me to conclude when sentiment gets this extreme – in either direction – it pays to take the other side for a trade. That means bears should give this cross-asset relief some time to breathe – especially in the context of dramatically improving Nonfarm Productivity dynamics that may ignite renewed interest in soft landing trades among investors. **In the context of our developing “sticky inflation” theme, October CPI on 11/14 may be the next truly bearish catalyst asset markets need to contend with.**

Qualitative Research Summary: Thursday, November 2, 2023

Growth:

- The latest data indicates the “resilient US economy” theme we authored last summer persists. We expect the resiliency of the US economy to begin dissipating in Q4.
- Per our analysis of historical yield curve inversion cycles last fall, a recession has the highest probability of commencing in the US economy in the Nov-23 to Apr-24 timeframe. Leading indicators currently indicate a low probability of a near-term recession, however.
- Japan and India currently have the most favorable growth dynamics abroad. Canada and Switzerland currently have the least favorable growth dynamics abroad.

Inflation:

- The US economy is late in the process of transitioning from “immaculate disinflation” to “sticky inflation”. We expect our “sticky inflation” theme to become consensus within 1-3 months.
- The escalating conflict in the middle east may perpetuate the rebound in energy inflation. Crude oil risks trending north of \$100 per barrel if any reduction in Middle Eastern supply is not immediately offset by an increase in Venezuelan supply because the US energy sector cannot respond like it did last year.
- China and India currently have the most favorable inflation dynamics abroad. The Eurozone and UK currently have the least favorable inflation dynamics abroad.

Policy:

- We believe the Fed has concluded its policy rate tightening cycle. We expect balance sheet roll off to persist over the medium term and continue supplying upward pressure on nominal and real interest rates amid elevated incremental Treasury supply.
- While fiscal policy was a dominant driver of persistent upside surprises in US growth in recent quarters, it is unlikely to remain as supportive over the medium term. Transitory factors dramatically inflated the federal budget deficit throughout FY23 in ways that are unlikely to be matched in FY24.
- India and Brazil currently have the most favorable policy dynamics abroad. The Eurozone and UK currently have the least favorable policy dynamics abroad.

Today’s Key Macro Event(s):

- Asset Markets Celebrate The Fed’s Premature Victory Lap

Quantitative Risk Management Summary: Thursday, November 2, 2023

Short-Term Signals (<1mo):

- **Crowding Model:** Not currently generating any bullish or bearish signals.
- **Probable Range Model:** The **US Dollar Index (DXY)**, **2yr Nominal Treasury Yield**, and **10yr Nominal Treasury Yield** are oversold. The **S&P 500**, **NASDAQ 100**, **Russell 2000**, and **Base Metals** are overbought.

Short-to-Medium-Term Signals (1-3mos):

- **Dispersion Model:** Balanced flows into Defensive and Cyclical equity sectors and factors on a trend basis suggests long/short equity investors are not likely to experience a violent reversal in dispersion in the near term.
- **Positioning Model:** Investor positioning in US Rates and Commodities is at extreme bearish levels, which has historically been bullish for Bonds and bearish for Commodities. Discretionary investor positioning is likely to be extremely underweight equities per the AAI Survey. Systematic investor positioning is likely to be neutral equities per the trend in realized volatility. US Equities are unlikely to find valuation support at current levels. Cyclical growth expectations are the dominant driver of the S&P 500 on a trending basis and the floor Fed Funds Rate is the dominant driver of Bitcoin on a trending basis.
- **Volatility-Adjusted Momentum Signal (VAMS):** Risk Assets are mixed. Stocks are bearish, Commodities are bullish, and Crypto is bullish. Defensive Assets are mixed. Treasuries are bearish, Gold and the CVIX are neutral, and the US Dollar Index, MOVE Index, and VIX are bullish. Investors should generally fear bullish breakouts in the US dollar and bond market volatility because they are headwinds for global liquidity. Four Horsemen of Market Risk Signals: the VVIX/VIX Ratio, High Beta/Low Beta Ratio, Small Cap/Mega Cap Ratio, and Value/Growth Ratio are bearish.

Medium-Term Signals (3mos):

- **Global Macro Risk Matrix:** **INFLATION** is the Top-Down Market Regime. **INFLATION** is a risk-off regime in which investors are generally rewarded for reducing risk. That includes selling rips in Risk Assets and underweighting Cyclical sectors and factors until the Top-Down Market Regime transitions to **GOLDILOCKS** or **REFLATION** – the two risk-on regimes in our **GRID** process. Our Cross-Asset Correction Risk Indicator (CACRI) has broken out above the Consensus Complacency Threshold, which has historically increased the probability of significant risk-off market events by a meaningful degree.
- **Macro Weather Model:** Currently generating a bullish three-month outlook for the US Dollar, and a bearish three-month outlook for Stocks, Bonds, Commodities, and Bitcoin. The US economy is in a low-conviction **REFLATION** (growth ↑; inflation ↑) regime with a likely transition to **DEFLATION** (growth ↓; inflation ↓) over the medium term.

Research + Risk Management = Discretionary Investment Ideas

Summary: Thursday, November 2, 2023

TOP-DOWN MARKET REGIME: INFLATION

US EQUITY SECTORS	VAMS	ACTION	US EQUITY FACTORS	VAMS	ACTION	GLOBAL EQUITIES	VAMS	ACTION	FIXED INCOME SECTORS	VAMS	ACTION	MACRO EXPOSURES	VAMS	ACTION
Beta (SPY)	✗	SHORT: Max Position	Dividend Compounders (SPHD)	✗	No Position	Australia (EWA)	✗	SHORT: Max Position	0-5yr TIPS (STIP)	✗	SHORT: Max Position	Agriculture (DBA)	!	LONG: Half Position
Consumer Discretionary (XLY)	✗	SHORT: Max Position	Growth (IWF)	✗	SHORT: Max Position	Brazil (EWZ)	✗	SHORT: Max Position	1-3yr Treasuries (SHY)	✗	SHORT: Max Position	Australian Dollar (FXA)	✗	SHORT: Max Position
Consumer Staples (XLP)	✗	No Position	High Beta (SPHB)	✗	No Position	Canada (EWC)	✗	SHORT: Max Position	5-10yr TIPS (TIP)	✗	SHORT: Max Position	Base Metals (DBB)	✗	SHORT: Max Position
Communication Services (XLC)	!	SHORT: Half Position	Low Beta (SPLV)	✗	SHORT: Max Position	China (FXI)	✗	SHORT: Max Position	5-10yr Treasuries (IEF)	✗	SHORT: Max Position	Bitcoin (BITO)	✓	LONG: Max Position
Energy (XLE)	✗	No Position	Mega Caps (OEF)	✗	SHORT: Max Position	Emerging Markets (EEM)	✗	SHORT: Max Position	25+ Year Treasuries (TLT)	✗	SHORT: Max Position	British Pound (FXB)	✗	SHORT: Max Position
Financials (XLF)	✗	SHORT: Max Position	Mega Cap Growth (QQQ)	✗	SHORT: Max Position	Eurozone (EZU)	✗	SHORT: Max Position	Barclays Agg (AGG)	✗	SHORT: Max Position	Commodities (DBC)	✓	LONG: Max Position
Health Care (XLV)	✗	No Position	Mid Caps (VO)	✗	SHORT: Max Position	India (INDA)	!	SHORT: Half Position	BDCs (BIZD)	✗	SHORT: Max Position	Energy (USO)	!	LONG: Half Position
Industrials (XLI)	✗	SHORT: Max Position	Momentum (MTUM)	✗	SHORT: Max Position	Japan (DXJ)	✗	SHORT: Max Position	Convertibles (CWB)	✗	No Position	Euro (FXE)	✗	SHORT: Max Position
Information Technology (XLK)	✗	SHORT: Max Position	Quality (QUAL)	✗	SHORT: Max Position	United Kingdom (EWU)	✗	SHORT: Max Position	EM Local Currency Bonds (EMLC)	✗	SHORT: Max Position	Gold (GLD)	!	LONG: Half Position
Materials (XLB)	✗	SHORT: Max Position	Small Caps (IWM)	✗	SHORT: Max Position				EM USD Bonds (EMB)	✗	SHORT: Max Position	Japanese Yen (FXY)	✗	SHORT: Max Position
Real Estate (XLRE)	✗	No Position	Value (IWD)	✗	SHORT: Max Position				High Yield Credit (HYG)	✗	SHORT: Max Position	Swiss Franc (FXF)	✗	SHORT: Max Position
Utilities (XLU)	✗	No Position							Investment Grade Credit (LQD)	✗	SHORT: Max Position	US Dollar (UUP)	✓	LONG: Max Position
									Leveraged Loans (BKLN)	✗	SHORT: Max Position	60/40 Portfolio (BIGPX)	✗	SHORT: Max Position
									MBS (MBB)	✗	SHORT: Max Position			
									Preferreds (PFF)	✗	SHORT: Max Position			

© 42 Macro LLC. Data Source: Bloomberg. GREEN ✓ = bullish VAMS, ORANGE ! = neutral VAMS, and RED ✗ = bearish VAMS.

If an ETF is **bullish** (or **bearish**) VAMS and that is in line with how it should trade in the current **GRID** regime, the model will recommend a **LONG** (**SHORT**): Max Position.

If an ETF is **neutral** VAMS and it should be **bullish** (or **bearish**) in the current **GRID** regime, the model will recommend a **LONG** (**SHORT**): Half Position.

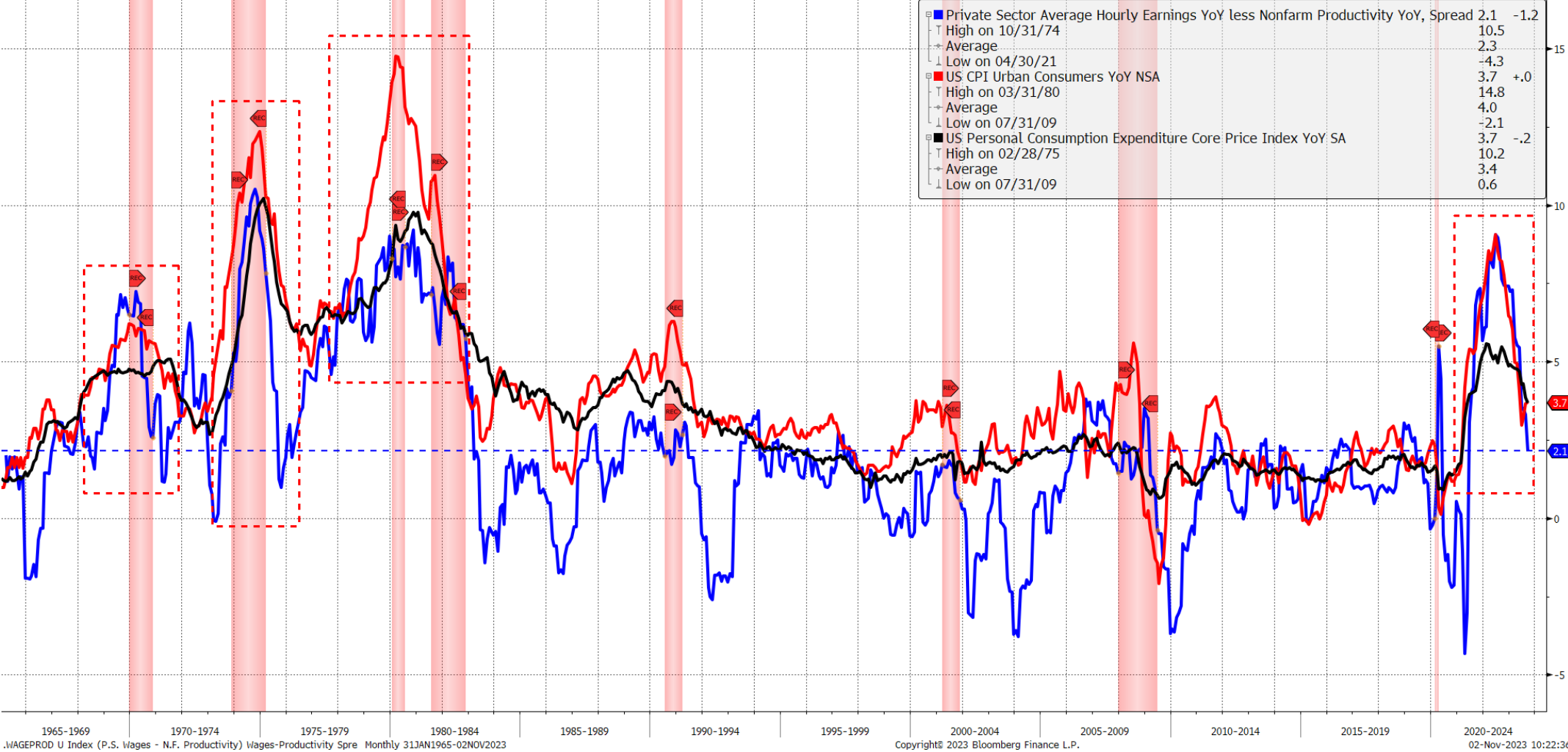
Max **LONGS** get cut to Half **LONGS** when the 14-Day RSI is **above 75**. Half **LONGS** get cut to No Position when the 14-Day RSI is **above 75**.

Max **SHORTS** and Half **SHORTS** get cut to No Position when the 14-Day RSI is **below 35**. Highlighted ETFs = changes in actionable signal from the prior publication.

Today's Key Macro Event: Asset Markets Celebrate The Fed's Premature Victory Lap

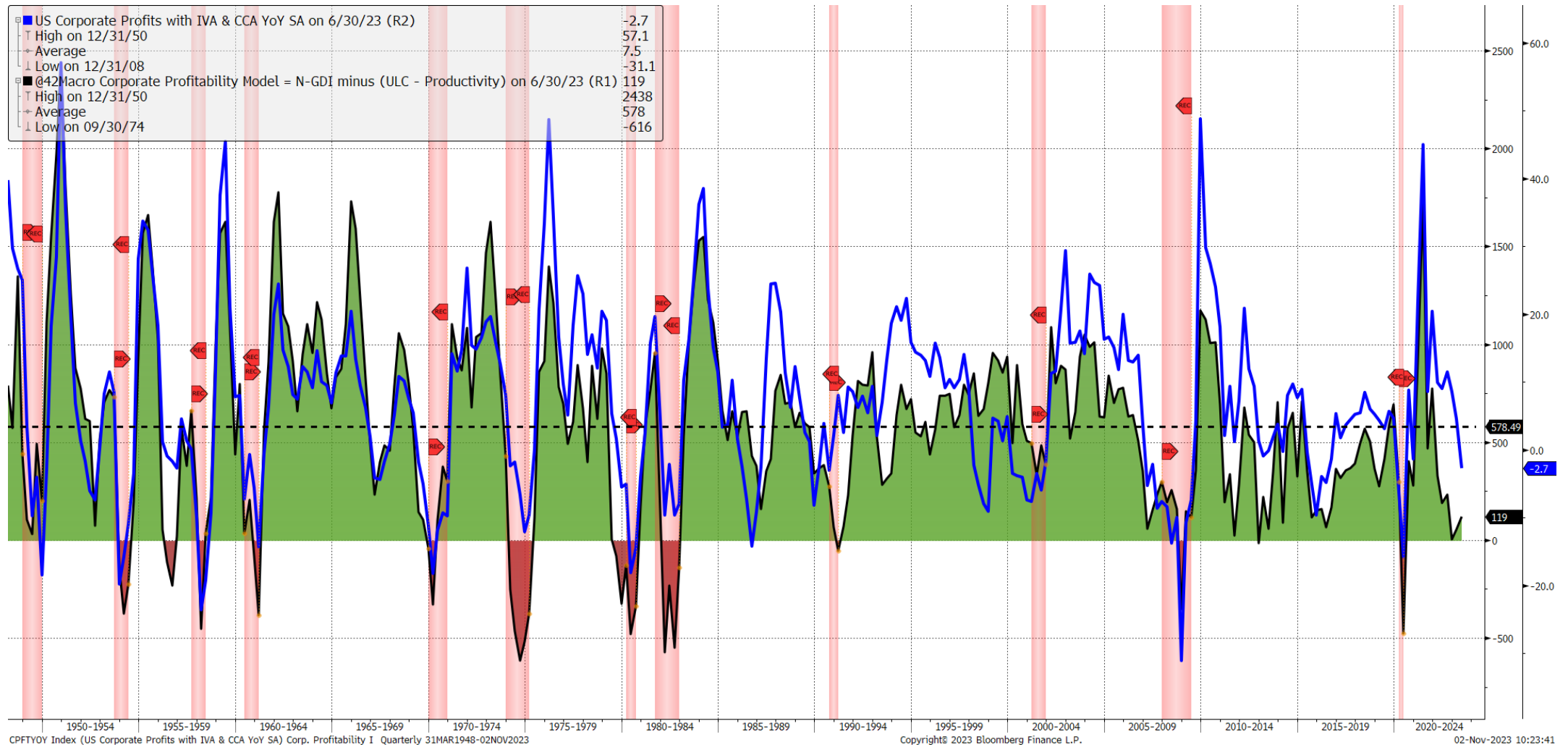
- Yesterday Fed Chair Powell confirmed our expectation the FOMC would signal very little about the outlook for monetary policy and, in doing so, implicitly confirm our view that the institution is done hiking the policy rate.
- From our purview, the key passage that added to the rush to cover bond shorts was this: *“Slowing down is giving us, I think, a better sense of how much more we need to do, if we need to do more.”* This effectively completes the Fed's transition to using TIME as the primary monetary policy tool, rather than the POLICY RATE or BALANCE SHEET ROLL OFF, which is likely to continue in the background for quite some time.
- Asset markets have rallied sharply since Tuesday's close (**\$SPY +2%**; **\$TLT +4%**) on the heels of the FOMC and dovish surprise in the Q4 Quarterly Refunding Announcement by the US Treasury – which we also accurately presaged thanks to our deep understanding of monetary plumbing dynamics. The relief rally in the stock market is about where we thought it would lose steam (~4300) and the relief rally in the bond market is a bit more extended than our ~4.75% expectation on the 10yr Nominal Treasury Yield.
- **Where to from here?** Our short-term quantitative risk management signals currently see stocks and bonds as tactically overbought and the US Dollar Index and VIX as tactically oversold – implying this is a good spot for discretionary investors to gross up risk-off INFLATION regime plays. **Our medium-term quantitative risk management signals currently see an extreme underweight in stocks by discretionary investors – the likes of which is typically only observed at major bear market bottoms in the stock market.**
- **My ~15yrs of experience on global Wall Street lead me to conclude when sentiment gets this extreme – in either direction – it pays to take the other side for a trade. That means bears should give this cross-asset relief some time to breathe – especially in the context of dramatically improving Nonfarm Productivity dynamics that may ignite renewed interest in soft landing trades among investors.**
- **In the context of our developing “sticky inflation” theme, October CPI on 11/14 may be the next truly bearish catalyst asset markets need to contend with.**

The Acceleration In Nonfarm Productivity Improves The Outlook For Inflation In The Eyes Of Astute Market Participants



WAGEPROD U Index (P.S. Wages - N.F. Productivity) Wages-Productivity Spre Monthly 31JAN1965-02NOV2023 Copyright© 2023 Bloomberg Finance L.P. 02-Nov-2023 10:22:36

Corporate Profitability Is Still Being Challenged, However, So There Is Still An Elevated Risk Of Firms Passing Through Unite Labor Cost Inflation To Consumers Over The Medium Term



Contextualizing The Latest Key Macroeconomic Data

Indicator	Delta	Momentum		Trends		Level Context		Delta Context	
Federal Funds Target Rate - Upper Bound	Nov-23 0.0	Oct-23 5.5	Nov-23 5.5	10YRMA 1.4	3MMA 5.5	Highest Since -	Lowest Since -	Fastest Since -	Slowest Since -
Brazil Trade Balance FOB Exports YoY	Oct-23 10.3	Sep-23 (0.5)	Oct-23 9.8	10YRMA 5.0	3MMA 3.3	Highest Since May-23	Lowest Since -	Fastest Since May-23	Slowest Since -
Brazil Trade Balance FOB Imports NSA YoY	Oct-23 9.0	Sep-23 (21.6)	Oct-23 (12.6)	10YRMA 2.8	3MMA (17.9)	Highest Since May-23	Lowest Since -	Fastest Since May-22	Slowest Since -
Brazil Selic Target Rate	Nov-23 (0.5)	Oct-23 12.8	Nov-23 12.3	10YRMA 9.4	3MMA 12.6	-	Lowest Since Apr-22	-	Slowest Since Jun-20
Australia Exports Goods & Services YoY%	Aug-23 1.2	Jul-23 (3.2)	Aug-23 (2.0)	10YRMA 9.1	3MMA (5.7)	Highest Since May-23	Lowest Since -	Fastest Since Jul-23	Slowest Since -
Australia Imports Goods & Services YoY%	Aug-23 (2.7)	Jul-23 (0.4)	Aug-23 (3.1)	10YRMA 5.9	3MMA (0.7)	-	Lowest Since Feb-21	-	Slowest Since May-23
US Auto Sales Total Annualized SAAR	Oct-23 (0.2)	Sep-23 15.7	Oct-23 15.5	10YRMA 16.1	3MMA 15.4	-	Lowest Since Aug-23	-	Slowest Since Aug-23
US Auto Sales Total Annualized SAAR YoY	Oct-23 (12.1)	Sep-23 16.2	Oct-23 4.0	10YRMA 0.9	3MMA 11.4	-	Lowest Since Aug-22	-	Slowest Since Mar-22
US Auto Sales Total Annualized SAAR 3mo SAAR	Oct-23 (5.8)	Sep-23 (0.3)	Oct-23 (6.1)	10YRMA 2.5	3MMA (2.2)	-	Lowest Since Jul-22	-	Slowest Since Jul-23
Switzerland CPI All Items YoY	Oct-23 0.0	Sep-23 1.7	Oct-23 1.7	10YRMA 0.5	3MMA 1.7	Highest Since May-23	Lowest Since -	Fastest Since Sep-23	Slowest Since -
Switzerland CPI All Items MoM	Oct-23 0.2	Sep-23 (0.1)	Oct-23 0.1	10YRMA 0.0	3MMA 0.1	Highest Since Aug-23	Lowest Since -	Fastest Since Aug-23	Slowest Since -
Switzerland Consumer Confidence Indicator SA (New method)	Dec-23 (13.0)	Sep-23 (27.0)	Dec-23 (40.0)	10YRMA (17.6)	3MMA (40.0)	-	Lowest Since Dec-22	-	Slowest Since Sep-22
Spain Manufacturing PMI SA	Oct-23 (2.6)	Sep-23 47.7	Oct-23 45.1	10YRMA 52.2	3MMA 46.4	-	Lowest Since Oct-22	-	Slowest Since Oct-22
Italy Manufacturing PMI SA	Oct-23 (1.9)	Sep-23 46.8	Oct-23 44.9	10YRMA 53.3	3MMA 45.7	-	Lowest Since Jul-23	-	Slowest Since Jun-23
France Manufacturing PMI SA	Oct-23 (1.4)	Sep-23 44.2	Oct-23 42.8	10YRMA 51.7	3MMA 44.3	-	Lowest Since Jan-00	-	Slowest Since Sep-23

Contextualizing The Latest Key Macroeconomic Data

Indicator	Delta	Momentum		Trends		Level Context		Delta Context	
S&P Global/BME Germany Manufacturing PMI SA	Oct-23 1.2	Sep-23 39.6	Oct-23 40.8	10YRMA 53.0	3MMA 39.8	Highest Since May-23	-	Fastest Since Jan-22	-
Eurozone Manufacturing PMI SA	Oct-23 (0.3)	Sep-23 43.4	Oct-23 43.1	10YRMA 53.0	3MMA 43.3	-	Lowest Since Jul-23	-	Slowest Since Jul-23
Germany Unemployment Change SWDA	Oct-23 18.0	Sep-23 12.0	Oct-23 30.0	10YRMA (2.2)	3MMA 21.0	Highest Since Jun-23	-	Fastest Since Jun-23	-
Germany Unemployment Rate SWDA	Oct-23 0.1	Sep-23 5.7	Oct-23 5.8	10YRMA 5.8	3MMA 5.7	Highest Since May-21	-	Fastest Since Jun-23	-
Challenger US Job Cut Announcements Year Over Year Percent Change	Oct-23 (49.4)	Sep-23 58.2	Oct-23 8.8	10YRMA 51.4	3MMA 111.3	-	Lowest Since Jul-23	-	Slowest Since Sep-23
UK Bank of England Official Bank Rate	Nov-23 0.0	Oct-23 5.3	Nov-23 5.3	10YRMA 0.9	3MMA 5.3	Highest Since -	Lowest Since -	Fastest Since -	Slowest Since -
US Unit Labor Costs Nonfarm Business Sector Yearly % Change SA	Sep-23 (1.8)	Jun-23 3.7	Sep-23 1.9	10YRMA 2.3	3MMA 1.9	-	Lowest Since Jun-21	-	Slowest Since Dec-21
US Unit Labor Costs Nonfarm Business Sector QoQ % SAAR	Sep-23 (4.0)	Jun-23 3.2	Sep-23 (0.8)	10YRMA 2.6	3MMA (0.8)	-	Lowest Since Dec-22	-	Slowest Since Jun-23
US Nonfarm Business Sector Output Per Hour Of All Persons YoY SA	Sep-23 1.0	Jun-23 1.2	Sep-23 2.2	10YRMA 1.4	3MMA 2.2	Highest Since Mar-21	-	Fastest Since Jun-23	-
US Labor Productivity Output Per Hour Nonfarm Business Sector QoQ SA	Sep-23 1.1	Jun-23 3.6	Sep-23 4.7	10YRMA 1.5	3MMA 4.7	Highest Since Sep-20	-	Fastest Since Jun-23	-
US Initial Jobless Claims SA	Oct-23 8.0	Sep-23 209.0	Oct-23 217.0	10YRMA 376.4	3MMA 217.0	Highest Since Aug-23	-	Fastest Since Jun-23	-
US Initial Jobless Claims 4 Week Moving Average SA	Oct-23 0.8	Sep-23 209.3	Oct-23 210.0	10YRMA 393.0	3MMA 210.0	Highest Since Aug-23	-	Fastest Since Aug-23	-
US Continuing Jobless Claims SA	Oct-23 113.0	Sep-23 1,705.0	Oct-23 1,818.0	10YRMA 3,226.8	3MMA 1,818.0	Highest Since Nov-21	-	Fastest Since Nov-22	-
US Continuing Jobless Claims NSA YoY	Oct-23 (37.8)	Sep-23 29.4	Oct-23 (8.4)	10YRMA 46.4	3MMA (8.4)	-	Lowest Since May-23	-	Slowest Since May-23
Continuing Claims as a % of the Total Labor Force SA	Oct-23 0.1	Sep-23 1.0	Oct-23 1.1	10YRMA 1.8	3MMA 1.0	Highest Since Apr-23	-	Fastest Since Nov-22	-

@42Macro Has A Simple 3-Step Process That Will Help You Know What Assets To Buy And Sell, When To Buy And Sell Them, And How Much To Buy And Sell

- **Step 1:** Organize the macroeconomy into distinct, investable regimes based on growth and inflation – the two principal components of asset market performance.
- **Step 2:** Backtest asset market performance and dispersion in the context of those distinct, investable regimes.
- **Step 3:** Nowcast which regime the economy is in along with other key macro factors to determine the likely performance and dispersion of asset markets.

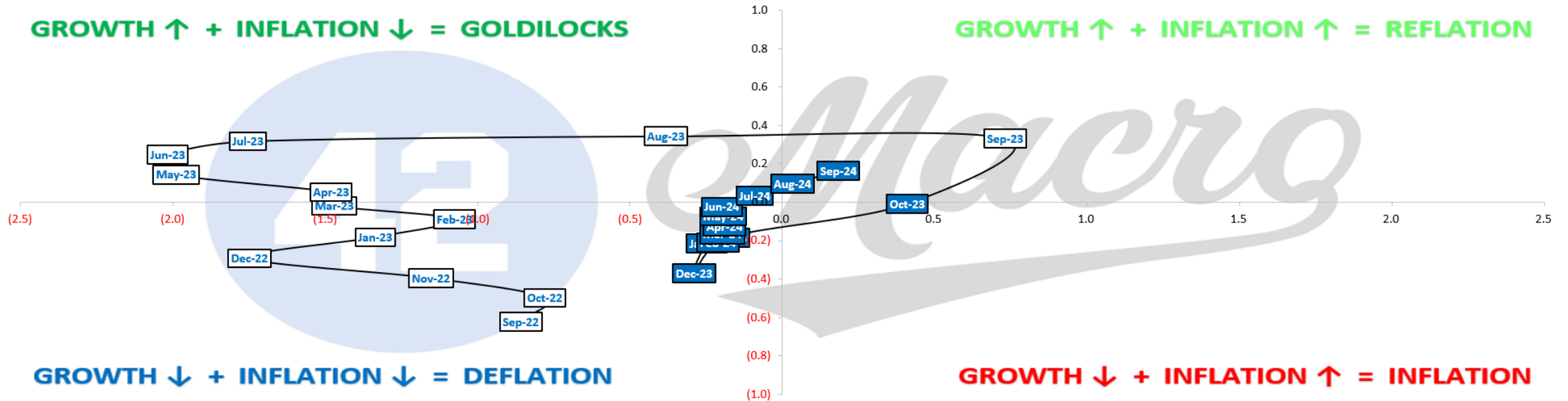
Step 1: Simply Macro: We Use The @42Macro GRID Model To Organize The Macroeconomy Into Distinct, Investable Regimes

United States		Actuals																Projections														
42 Macro GRID Framework		Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24
Macro Regime		I	I	I	I	I	D	D	D	D	D	D	D	D	G	G	G	G	G	R	I	D	D	D	D	D	D	D	D	G	R	R
Conditional Probability of GOLDILOCKS		2%	3%	6%	6%	2%	6%	13%	9%	14%	25%	32%	30%	32%	54%	47%	54%	61%	58%	13%	14%	19%	11%	19%	19%	21%	24%	26%	29%	30%	28%	26%
Conditional Probability of REFLATION		26%	28%	17%	6%	9%	4%	2%	3%	3%	1%	1%	4%	7%	2%	3%	5%	2%	11%	56%	34%	13%	6%	11%	12%	13%	16%	17%	19%	23%	31%	38%
Conditional Probability of INFLATION		68%	63%	56%	45%	71%	36%	10%	22%	15%	3%	3%	7%	11%	2%	3%	4%	1%	5%	25%	37%	28%	29%	26%	27%	26%	24%	23%	21%	20%	22%	21%
Conditional Probability of DEFLATION		5%	6%	21%	43%	18%	53%	76%	66%	68%	71%	64%	59%	51%	43%	46%	38%	36%	25%	6%	15%	41%	54%	44%	42%	40%	36%	34%	32%	26%	19%	15%
OECD Composite Leading Indicator		100.6	100.4	100.1	99.8	99.5	99.3	99.2	99.0	98.9	98.9	98.8	98.8	98.9	98.9	99.0	99.1	99.2	99.3	99.4	99.2	99.1	99.1	99.0	98.9	98.9	98.9	98.9	98.9	99.0	99.0	
3mo Δ		-0.4	-0.5	-0.7	-0.8	-0.8	-0.8	-0.6	-0.5	-0.4	-0.3	-0.2	-0.1	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.0	-0.2	-0.4	-0.2	-0.2	-0.2	-0.1	-0.1	0.0	0.0	0.2	
Z-Score (t3yrs)		-0.3	-0.3	-0.4	-0.5	-0.5	-0.4	-0.3	-0.3	-0.2	-0.1	-0.1	0.0	0.0	-0.1	-0.1	-0.1	0.1	0.3	0.4	-0.1	-0.4	-0.6	-0.3	-0.2	-0.1	0.1	0.4	0.6	0.8	0.9	1.1
Headline CPI YoY		8.5	8.3	8.6	9.1	8.5	8.3	8.2	7.7	7.1	6.5	6.4	6.0	5.0	4.9	4.0	3.0	3.2	3.7	3.7	3.6	3.5	3.4	3.3	3.3	3.2	3.1	3.1	3.0	3.1	3.2	
3mo Δ		1.5	0.8	0.7	0.5	0.3	-0.3	-0.9	-0.8	-1.2	-1.7	-1.3	-1.1	-1.5	-1.5	-2.0	-2.0	-1.8	-0.4	0.7	0.4	-0.2	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	0.0	0.2	
Z-Score (t3yrs)		0.9	0.2	0.1	0.0	-0.3	-0.8	-1.2	-1.1	-1.4	-1.7	-1.3	-1.1	-1.3	-1.4	-1.8	-1.7	-1.4	-0.4	0.4	0.2	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.1	0.0	0.1	0.2	0.4

→ x-axis: 3mo Δ of Headline CPI YoY; y-axis: 3mo Δ of OECD Composite Leading Indicator

GROWTH ↑ + INFLATION ↓ = GOLDILOCKS

GROWTH ↑ + INFLATION ↑ = REFLATION



GROWTH ↓ + INFLATION ↓ = DEFLATION

GROWTH ↓ + INFLATION ↑ = INFLATION

Step 2: What To Buy Or Sell: We Use The @42Macro GRID Asset Market Backtests To Gain A Deep Understanding Of What Drives Markets

FACTOR (ETF)	Annualized Expected Return				Percent Positive Ratio				Volatility				Covariance w/ US Equity Beta				FACTOR (ETF)	Expected Sharpe Ratio Rankings			
	GOLDDLOCKS	REFLECTION	INFLATION	DEFLATION	GOLDDLOCKS	REFLECTION	INFLATION	DEFLATION	GOLDDLOCKS	REFLECTION	INFLATION	DEFLATION	GOLDDLOCKS	REFLECTION	INFLATION	DEFLATION		GOLDDLOCKS	REFLECTION	INFLATION	DEFLATION
Beta (SPY)	24%	10%	-8%	2%	66%	65%	43%	51%	9%	6%	12%	11%	1.00	1.00	1.00	1.00	Beta (SPY)	11	6	11	8
Consumer Discretionary (XLY)	53%	19%	-3%	11%	71%	65%	56%	64%	6%	8%	11%	12%	0.92	0.88	0.92	0.90	Consumer Discretionary (XLY)	3	2	10	5
Consumer Staples (XLP)	13%	-4%	13%	6%	71%	50%	60%	60%	4%	6%	5%	7%	0.84	0.81	0.59	0.84	Consumer Staples (XLP)	9	12	2	4
Communication Services (XLC)	54%	11%	-18%	11%	86%	55%	63%	60%	5%	6%	8%	11%	0.68	0.81	0.87	0.89	Communication Services (XLC)	1	5	12	2
Energy (XLE)	64%	-6%	28%	-3%	86%	60%	63%	48%	10%	12%	12%	18%	0.85	0.48	0.42	0.80	Energy (XLE)	7	11	3	9
Financials (XLF)	51%	10%	3%	-8%	71%	45%	50%	48%	7%	7%	8%	11%	0.96	0.80	0.88	0.87	Financials (XLF)	4	7	6	12
Health Care (XLV)	25%	10%	6%	8%	71%	65%	50%	52%	4%	5%	6%	8%	0.86	0.84	0.75	0.83	Health Care (XLV)	5	3	4	3
Industrials (XLI)	43%	11%	1%	2%	57%	50%	50%	56%	6%	6%	7%	11%	0.96	0.87	0.95	0.94	Industrials (XLI)	6	4	8	7
Information Technology (XLK)	57%	24%	0%	13%	86%	60%	56%	60%	5%	7%	9%	11%	0.77	0.87	0.97	0.94	Information Technology (XLK)	2	1	9	1
Materials (XLB)	31%	9%	3%	4%	57%	65%	56%	48%	6%	6%	8%	11%	0.92	0.77	0.90	0.94	Materials (XLB)	8	8	7	6
Real Estate (XLRE)	11%	7%	7%	-3%	71%	55%	56%	60%	3%	5%	7%	10%	0.94	0.62	0.78	0.86	Real Estate (XLRE)	10	9	5	10
Utilities (XLU)	-10%	5%	20%	-3%	71%	50%	63%	56%	3%	7%	6%	7%	0.63	0.33	0.82	0.69	Utilities (XLU)	12	10	1	11
Dividend Compounders (SPHD)	29%	6%	7%	5%	71%	55%	63%	64%	5%	5%	6%	9%	0.92	0.90	0.94	0.96	Dividend Compounders (SPHD)	4	10	1	4
Growth (IWF)	29%	18%	-6%	9%	67%	59%	53%	53%	11%	7%	10%	11%	0.97	0.92	0.96	0.96	Growth (IWF)	10	2	10	3
High Beta (SPHB)	72%	19%	-2%	7%	71%	55%	63%	56%	10%	8%	10%	15%	0.96	0.66	0.94	0.95	High Beta (SPHB)	3	4	5	5
Low Beta (SPLV)	20%	6%	-8%	7%	72%	50%	40%	55%	7%	6%	10%	9%	0.86	0.84	0.88	0.88	Low Beta (SPLV)	9	9	11	2
Mega Caps (OEF)	30%	11%	-3%	1%	66%	59%	49%	53%	8%	6%	9%	9%	0.98	0.99	0.99	0.99	Mega Caps (OEF)	6	8	8	10
Mega Cap Growth (QQQ)	56%	23%	-3%	16%	86%	65%	63%	56%	5%	7%	9%	11%	0.78	0.89	0.97	0.94	Mega Cap Growth (QQQ)	1	1	7	1
Mid Caps (VO)	45%	11%	0%	1%	57%	70%	69%	52%	6%	5%	7%	12%	0.97	0.81	0.95	0.96	Mid Caps (VO)	2	7	3	11
Momentum (MTUM)	28%	16%	-3%	2%	63%	59%	56%	57%	11%	7%	10%	9%	0.93	0.86	0.90	0.88	Momentum (MTUM)	11	3	6	7
Quality (QUAL)	33%	13%	-5%	3%	68%	59%	51%	49%	9%	6%	9%	9%	0.98	0.97	0.99	0.97	Quality (QUAL)	7	6	9	6
Small Caps (IWM)	55%	12%	0%	2%	71%	75%	57%	53%	10%	5%	12%	13%	0.83	0.67	0.93	0.91	Small Caps (IWM)	5	5	2	9
Value (IWD)	27%	4%	-1%	2%	70%	55%	53%	53%	9%	6%	8%	10%	0.95	0.91	0.96	0.95	Value (IWD)	8	11	4	8
Brazil (EWZ)	84%	-15%	2%	-7%	86%	35%	56%	48%	10%	12%	12%	17%	0.97	0.47	0.36	0.52	Brazil (EWZ)	2	7	2	7
China (FXI)	-8%	9%	-36%	9%	57%	55%	31%	52%	6%	8%	7%	14%	0.64	0.28	0.00	0.51	China (FXI)	7	3	7	3
Emerging Markets (EEM)	27%	3%	-20%	0%	57%	45%	44%	52%	5%	6%	5%	10%	0.85	0.53	0.77	0.79	Emerging Markets (EEM)	3	4	6	5
Eurozone (EZU)	32%	1%	-2%	3%	71%	55%	44%	56%	6%	5%	6%	9%	0.94	0.76	0.89	0.89	Eurozone (EZU)	4	6	3	4
India (INDA)	52%	12%	13%	-2%	86%	70%	56%	48%	4%	5%	6%	10%	0.72	0.58	0.66	0.60	India (INDA)	1	1	1	6
Japan (DXJ)	29%	10%	-6%	8%	70%	60%	48%	58%	10%	9%	9%	9%	0.46	0.30	0.30	0.65	Japan (DXJ)	5	2	4	2
United Kingdom (EWU)	30%	2%	-19%	13%	70%	60%	46%	54%	12%	8%	14%	19%	0.29	0.33	0.48	0.56	United Kingdom (EWU)	6	5	5	1
0-5yr TIPS (STIP)	5%	5%	2%	1%	100%	75%	63%	67%	0%	1%	1%	1%	(1.00)	0.31	0.49	0.77	0-5yr TIPS (STIP)	2	1	1	12
1-3yr Treasuries (SHY)	1%	1%	-2%	2%	100%	55%	31%	71%	0%	0%	1%	1%	(1.00)	(0.50)	0.15	0.08	1-3yr Treasuries (SHY)	1	7	11	1
5-10yr TIPS (TIP)	-1%	7%	-1%	2%	57%	60%	50%	68%	1%	2%	3%	3%	0.56	0.14	0.56	0.70	5-10yr TIPS (TIP)	13	5	6	11
5-10yr Treasuries (IEF)	-4%	1%	-5%	5%	29%	50%	25%	60%	1%	2%	2%	3%	0.14	(0.36)	0.23	0.22	5-10yr Treasuries (IEF)	14	13	10	4
25+ Year Treasuries (TLT)	-14%	0%	-13%	7%	43%	50%	31%	56%	2%	6%	7%	7%	0.81	(0.28)	0.24	0.12	25+ Year Treasuries (TLT)	15	15	12	7
Barclays Agg (AGG)	9%	3%	-1%	8%	66%	55%	42%	62%	4%	2%	5%	5%	0.25	(0.09)	0.38	0.42	Barclays Agg (AGG)	9	10	4	3
BDCs (BIZD)	60%	14%	9%	0%	86%	75%	56%	48%	7%	6%	5%	16%	0.90	0.67	0.87	0.84	BDCs (BIZD)	6	8	2	14
Convertibles (CWB)	124%	19%	-13%	10%	100%	60%	44%	63%	5%	5%	5%	8%	1.00	0.65	0.91	0.92	Convertibles (CWB)	3	4	4	13
EM Local Currency Bonds (EMLC)	8%	0%	-7%	4%	57%	45%	50%	56%	2%	2%	2%	4%	0.76	0.25	0.58	0.62	EM Local Currency Bonds (EMLC)	8	14	14	9
EM USD Bonds (EMB)	10%	1%	-10%	5%	71%	50%	44%	64%	1%	2%	3%	5%	0.96	0.38	0.72	0.69	EM USD Bonds (EMB)	7	12	15	8
High Yield Credit (HYG)	16%	6%	-4%	3%	86%	75%	50%	64%	2%	2%	3%	5%	0.90	0.66	0.84	0.86	High Yield Credit (HYG)	5	6	9	10
Investment Grade Credit (LQD)	12%	4%	-4%	12%	63%	66%	43%	66%	5%	2%	7%	6%	0.96	0.06	0.40	0.62	Investment Grade Credit (LQD)	10	11	7	2
Leveraged Loans (BKLN)	16%	7%	1%	2%	86%	85%	69%	64%	1%	1%	1%	5%	0.76	0.63	0.56	0.70	Leveraged Loans (BKLN)	4	2	3	13
MBS (MBS)	10%	3%	-1%	8%	69%	59%	36%	67%	4%	1%	6%	6%	0.24	0.01	0.38	0.30	MBS (MBS)	11	9	5	6
Preferreds (PFF)	5%	16%	-4%	-10%	71%	70%	50%	40%	3%	3%	4%	8%	0.90	0.76	0.68	0.66	Preferreds (PFF)	12	3	8	15
Agriculture (DBA)	1%	31%	8%	-7%	46%	70%	45%	47%	3%	6%	5%	7%	0.23	0.60	(0.09)	0.14	Agriculture (DBA)	7	3	2	5
Base Metals (DBB)	5%	22%	-9%	-14%	46%	70%	25%	35%	3%	3%	4%	4%	0.19	0.54	0.51	0.34	Base Metals (DBB)	3	1	7	7
Bitcoin (BITO)	142%	38%	50%	7%	57%	50%	50%	40%	15%	27%	26%	22%	0.25	0.05	0.18	0.42	Bitcoin (BITO)	1	6	1	3
Commodities (DBC)	3%	25%	-2%	-11%	46%	85%	40%	38%	2%	4%	4%	4%	0.23	0.64	0.27	0.28	Commodities (DBC)	4	2	6	6
Energy (USO)	78%	19%	14%	9%	86%	65%	56%	48%	11%	12%	14%	34%	0.75	0.55	0.11	0.44	Energy (USO)	2	4	4	4
Gold (GLD)	9%	12%	33%	7%	53%	51%	58%	56%	13%	8%	21%	11%	0.09	0.19	0.15	0.25	Gold (GLD)	6	5	3	1
US Dollar (UUP)	3%	-2%	0%	1%	55%	43%	53%	45%	3%	3%	6%	4%	(0.27)	(0.35)	(0.17)	(0.40)	US Dollar (UUP)	5	7	5	2

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GRID Asset Markets Backtest sample = [Jan-68 through Dec-82] + [Jan-18 through present].



Step 2: What To Buy Or Sell: Highest And Lowest Annualized Expected Returns For Equity Sectors And Factors By GRID Regime

GOLDDILOCKS

Equity Sector Rankings

1	Energy (XLE)
2	Information Technology (XLK)
3	Communication Services (XLC)
4	Consumer Discretionary (XLY)
5	Financials (XLF)
6	Industrials (XLI)
7	Materials (XLB)
8	Health Care (XLV)
9	Consumer Staples (XLP)
10	Real Estate (XLRE)
11	Utilities (XLU)

Equity Factor Rankings

1	High Beta (SPHB)
2	Mega Cap Growth (QQQ)
3	Small Caps (IWM)
4	Mid Caps (VO)
5	Quality (QUAL)
6	Mega Caps (OEF)
7	Growth (IWF)
8	Dividend Compounders (SPHD)
9	Momentum (MTUM)
10	Value (IWD)
11	Beta (SPY)
12	Low Beta (SPLV)

REFLATION

Equity Sector Rankings

1	Information Technology (XLK)
2	Consumer Discretionary (XLY)
3	Communication Services (XLC)
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10	Low Beta (SPLV)
11	Dividend Compounders (SPHD)
12	Value (IWD)

INFLATION

Equity Sector Rankings

1	Energy (XLE)
2	Utilities (XLU)
3	Consumer Staples (XLP)
4	Real Estate (XLRE)
5	Health Care (XLV)
6	Financials (XLF)
7	Materials (XLB)
8	Industrials (XLI)
9	Information Technology (XLK)
10	Consumer Discretionary (XLY)
11	Communication Services (XLC)

Equity Factor Rankings

1	Dividend Compounders (SPHD)
2	Small Caps (IWM)
3	Mid Caps (VO)
4	Value (IWD)
5	High Beta (SPHB)
6	Mega Cap Growth (QQQ)
7	Mega Caps (OEF)
8	Momentum (MTUM)
9	Quality (QUAL)
10	Growth (IWF)
11	Low Beta (SPLV)
12	Beta (SPY)

DEFLATION

Equity Sector Rankings

1	Information Technology (XLK)
2	Communication Services (XLC)
3	Consumer Discretionary (XLY)
4	Health Care (XLV)
5	Consumer Staples (XLP)
6	Materials (XLB)
7	Industrials (XLI)
8	Energy (XLE)
9	Utilities (XLU)
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Equity Factor Rankings

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10	Beta (SPY)
11	Mid Caps (VO)
12	Mega Caps (OEF)

Data Source: Bloomberg. Intellectual property of @42Macro. GRID Asset Markets Backtests span [Jan-68 to Dec-82] and [Jan-18 to present].

Red lines indicate cutoff between positive and negative annualized expected returns.

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GRID Asset Markets Backtest sample = [Jan-68 through Dec-82] + [Jan-18 through present].

Red lines indicate cutoff between positive and negative annualized expected returns.

Step 2: What To Buy Or Sell: Highest And Lowest Expected Sharpe Ratios, Across Asset Classes, By GRID Regime

GOLDSLOCKS

Top 3 Equity Factors

Mega Cap Growth (QQQ)
Mid Caps (VO)
High Beta (SPHB)

Bottom 3 Equity Factors

Beta (SPY)
Momentum (MTUM)
Growth (IWF)

Top 3 Equity Sectors

Communication Services (XLC)
Information Technology (XLK)
Consumer Discretionary (XLY)

Bottom 3 Equity Sectors

Utilities (XLU)
Real Estate (XLRE)
Consumer Staples (XLP)

Top 5 Fixed Income Factors

1-3yr Treasuries (SHY)
0-5yr TIPS (STIP)
Convertible Bonds (CWB)
Leveraged Loans (BKLN)
High Yield Credit (HYG)

Bottom 5 Fixed Income Factors

25+ Year Treasuries (TLT)
5-10yr Treasuries (IEF)
5-10yr TIPS (TIP)
Preferreds (PFF)
MBS (MBB)

Top 3 Macro Factors

Bitcoin (BITO)
Energy (USO)
Base Metals (DBB)

Bottom 3 Macro Factors

Agriculture (DBA)
Gold (GLD)
US Dollar (UUP)

REFLATION

Top 3 Equity Factors

Mega Cap Growth (QQQ)
Growth (IWF)
Momentum (MTUM)

Bottom 3 Equity Factors

Value (IWD)
Dividend Compounders (SPHD)
Low Beta (SPLV)

Top 3 Equity Sectors

Information Technology (XLK)
Consumer Discretionary (XLY)
Health Care (XLV)

Bottom 3 Equity Sectors

Consumer Staples (XLP)
Energy (XLE)
Utilities (XLU)

Top 5 Fixed Income Factors

0-5yr TIPS (STIP)
Leveraged Loans (BKLN)
Preferreds (PFF)
Convertible Bonds (CWB)
5-10yr TIPS (TIP)

Bottom 5 Fixed Income Factors

25+ Year Treasuries (TLT)
EM Local Currency Bonds (EMLC)
5-10yr Treasuries (IEF)
EM USD Bonds (EMB)
Investment Grade Credit (LQD)

Top 3 Macro Factors

Base Metals (DBB)
Commodities (DBC)
Agriculture (DBA)

Bottom 3 Macro Factors

US Dollar (UUP)
Bitcoin (BITO)
Gold (GLD)

INFLATION

Top 3 Equity Factors

Dividend Compounders (SPHD)
Small Caps (IWM)
Mid Caps (VO)

Bottom 3 Equity Factors

Low Beta (SPLV)
Beta (SPY)
Growth (IWF)

Top 3 Equity Sectors

Utilities (XLU)
Consumer Staples (XLP)
Energy (XLE)

Bottom 3 Equity Sectors

Communication Services (XLC)
Consumer Discretionary (XLY)
Information Technology (XLK)

Top 5 Fixed Income Factors

0-5yr TIPS (STIP)
BDCs (BIZD)
Leveraged Loans (BKLN)
Core Aggregate (AGG)
MBS (MBB)

Bottom 5 Fixed Income Factors

EM USD Bonds (EMB)
EM Local Currency Bonds (EMLC)
Convertible Bonds (CWB)
25+ Year Treasuries (TLT)
1-3yr Treasuries (SHY)

Top 3 Macro Factors

Bitcoin (BITO)
Agriculture (DBA)
Gold (GLD)

Bottom 3 Macro Factors

Industrial Metals (DBB)
Commodities (DBC)
US Dollar (UUP)

DEFLATION

Top 3 Equity Factors

Mega Cap Growth (QQQ)
Low Beta (SPLV)
Growth (IWF)

Bottom 3 Equity Factors

Mid Caps (VO)
Mega Caps (OEF)
Beta (SPY)

Top 3 Equity Sectors

Information Technology (XLK)
Communication Services (XLC)
Health Care (XLV)

Bottom 3 Equity Sectors

Financials (XLF)
Utilities (XLU)
Real Estate (XLRE)

Top 5 Fixed Income Factors

1-3yr Treasuries (SHY)
Investment Grade Credit (LQD)
Core Aggregate (AGG)
5-10yr Treasuries (IEF)
Convertible Bonds (CWB)

Bottom 5 Fixed Income Factors

Preferreds (PFF)
BDCs (BIZD)
Leveraged Loans (BKLN)
0-5yr TIPS (STIP)
5-10yr TIPS (TIP)






Top 3 Macro Factors

Gold (GLD)
US Dollar (UUP)
Bitcoin (BITO)

Bottom 3 Macro Factors

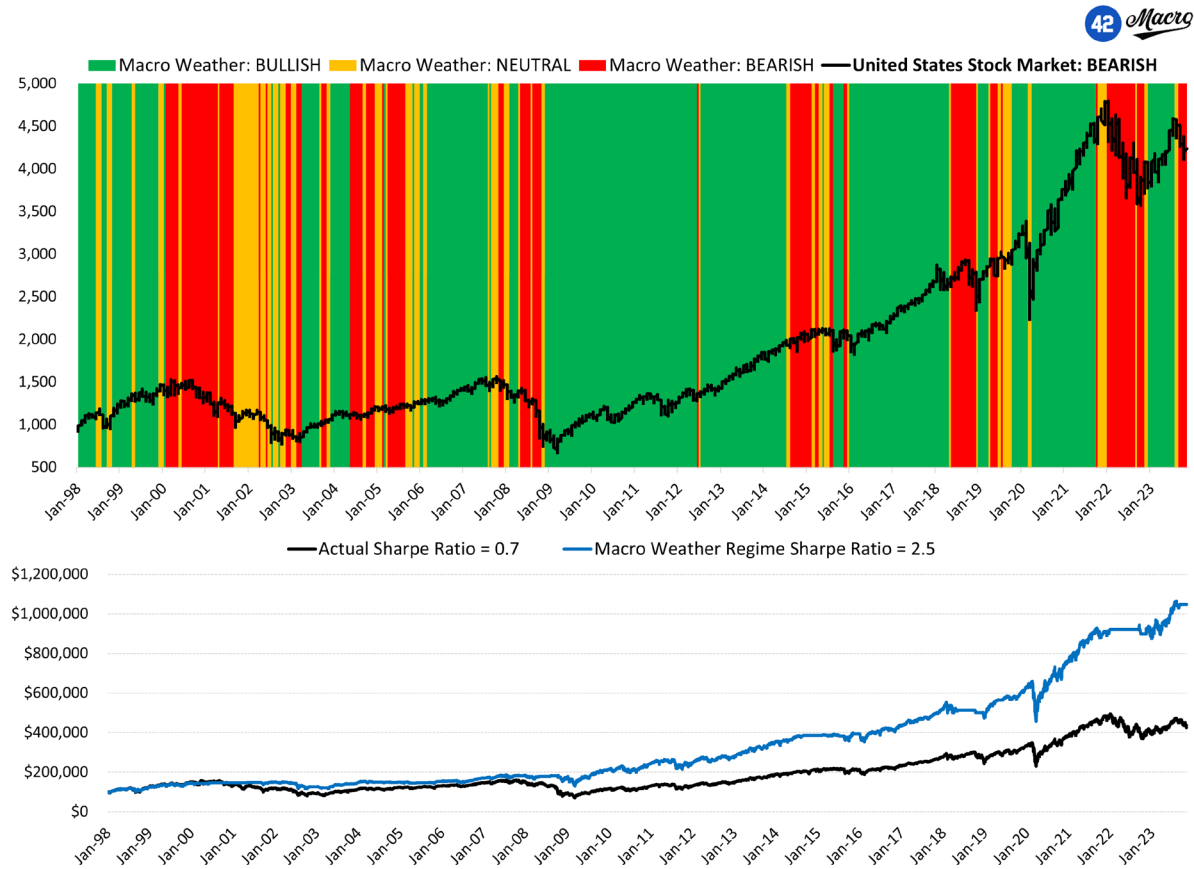
Industrial Metals (DBB)
Commodities (DBC)
Agriculture (DBA)

Step 3: When And How Much To Buy Or Sell: We Use The @Macro Weather Model To Determine The Current And Future Macro Regime — Which Dictates Our Factor Preferences — And Target Allocation Per Position

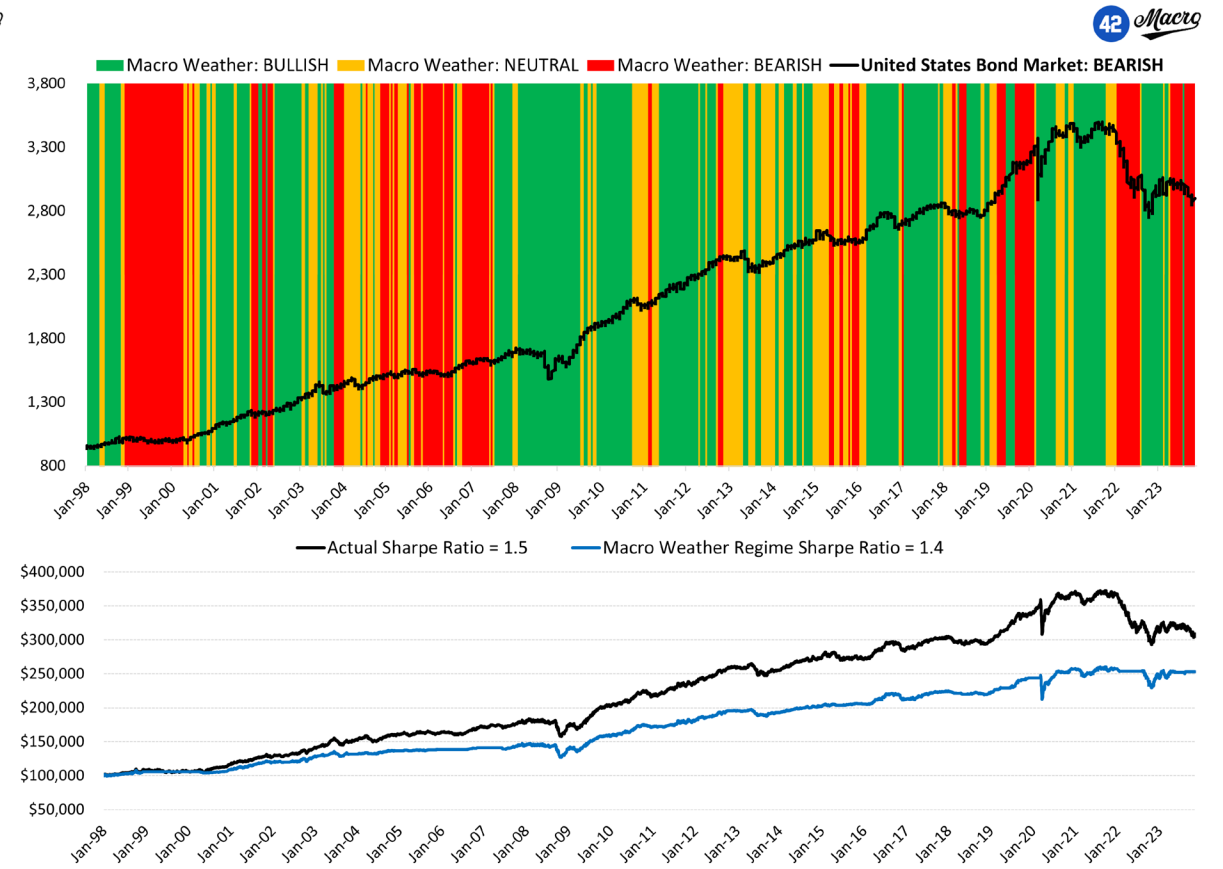
Ten Principal Components of Macro: Real Economy Cycles					United States 11/2/2023	Ten Principal Components of Macro: Financial Economy Cycles																																
<table border="1"> <thead> <tr> <th>Growth</th> <th>Previous Value</th> <th>Latest Value</th> <th>Previous Signal</th> <th>Latest Signal</th> </tr> </thead> <tbody> <tr> <td>OECD Composite Leading Indicator</td> <td>99.3</td> <td>99.4</td> <td>↑</td> <td>↑</td> </tr> <tr> <td>Bloomberg Consensus NTM Real GDP Δ</td> <td>-210bps</td> <td>-210bps</td> <td>↓</td> <td>↓</td> </tr> </tbody> </table>					Growth	Previous Value	Latest Value	Previous Signal	Latest Signal	OECD Composite Leading Indicator	99.3	99.4	↑	↑	Bloomberg Consensus NTM Real GDP Δ	-210bps	-210bps	↓	↓	Stock Market 3-Month Outlook 	<table border="1"> <thead> <tr> <th>Latest Signal</th> <th>Previous Signal</th> <th>Latest Value</th> <th>Previous Value</th> </tr> </thead> <tbody> <tr> <td>↓</td> <td>↓</td> <td>\$5,996</td> <td>\$5,938</td> </tr> <tr> <td>↓</td> <td>↓</td> <td>\$129,415</td> <td>\$129,292</td> </tr> </tbody> </table>				Latest Signal	Previous Signal	Latest Value	Previous Value	↓	↓	\$5,996	\$5,938	↓	↓	\$129,415	\$129,292	Liquidity @42Macro Net Liquidity \$bn @42Macro Global Liquidity Proxy \$bn	
Growth	Previous Value	Latest Value	Previous Signal	Latest Signal																																		
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↓	↓	\$5,996	\$5,938																																			
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<table border="1"> <thead> <tr> <th>Inflation</th> <th>Previous Value</th> <th>Latest Value</th> <th>Previous Signal</th> <th>Latest Signal</th> </tr> </thead> <tbody> <tr> <td>Headline CPI YoY</td> <td>3.7%</td> <td>3.7%</td> <td>↓</td> <td>↑</td> </tr> <tr> <td>Bloomberg Consensus NTM Headline CPI Δ</td> <td>-130bps</td> <td>-100bps</td> <td>↓</td> <td>↓</td> </tr> </tbody> </table>					Inflation	Previous Value	Latest Value	Previous Signal	Latest Signal	Headline CPI YoY	3.7%	3.7%	↓	↑	Bloomberg Consensus NTM Headline CPI Δ	-130bps	-100bps	↓	↓	Bond Market 3-Month Outlook 	<table border="1"> <thead> <tr> <th>Latest Signal</th> <th>Previous Signal</th> <th>Latest Value</th> <th>Previous Value</th> </tr> </thead> <tbody> <tr> <td>↓</td> <td>↓</td> <td>-3.6%</td> <td>-0.9%</td> </tr> <tr> <td>↓</td> <td>↓</td> <td>2.1%</td> <td>5.1%</td> </tr> </tbody> </table>				Latest Signal	Previous Signal	Latest Value	Previous Value	↓	↓	-3.6%	-0.9%	↓	↓	2.1%	5.1%	Credit Domestic Broad Money Supply YoY Global PPP-Weighted Broad Money Supply YoY	
Inflation	Previous Value	Latest Value	Previous Signal	Latest Signal																																		
Headline CPI YoY	3.7%	3.7%	↓	↑																																		
Bloomberg Consensus NTM Headline CPI Δ	-130bps	-100bps	↓	↓																																		
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Employment	Previous Value	Latest Value	Previous Signal	Latest Signal																																		
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Latest Signal	Previous Signal	Latest Value	Previous Value																																			
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Corporate Profits	Previous Value	Latest Value	Previous Signal	Latest Signal																																		
Bloomberg Consensus NTM S&P 500 Sales Growth Rate	0.2%	0.2%	↓	↓																																		
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Fiscal Policy	Previous Value	Latest Value	Previous Signal	Latest Signal																																		
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GRID Regime: REFLATION Conviction: LOW																																						

© 42 Macro LLC. Data Source: Bloomberg. How the model works: Each of the 20 features representing the Ten Principal Components of Macro contributes independently to the independent Composite Signals for each asset class. Each Composite Signal is designed to predict whether observed macroeconomic conditions – aka the “Macro Weather” – support **buying**, **holding**, or **selling** the asset class today with a 3-month investment horizon.

Weather Model Composite Signal: Stock Market

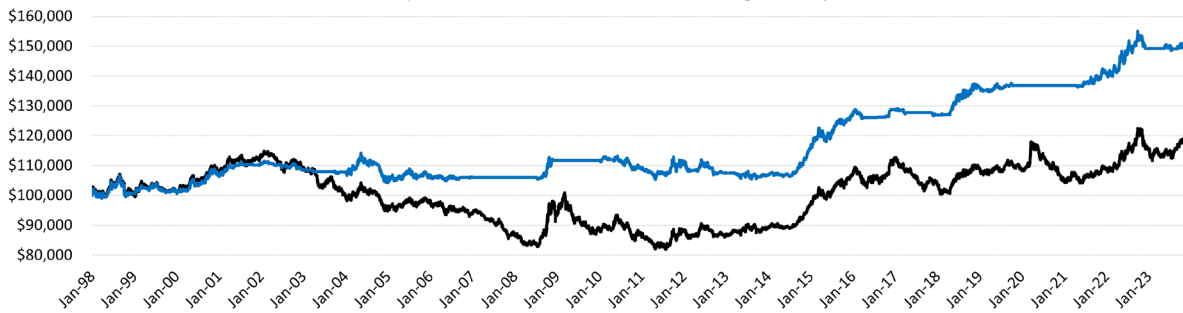
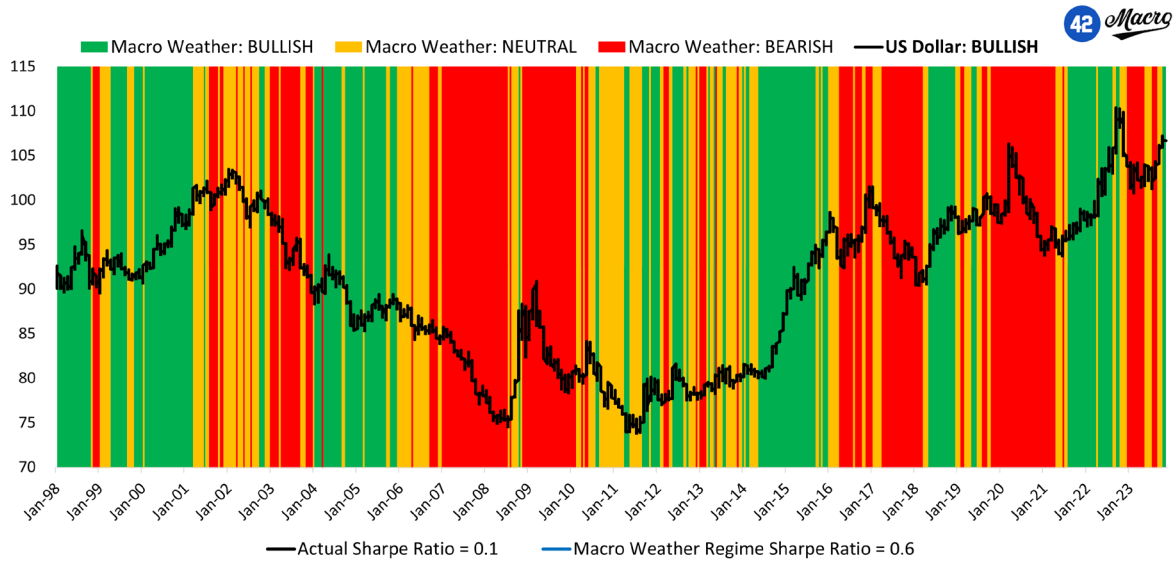


Weather Model Composite Signal: Bond Market

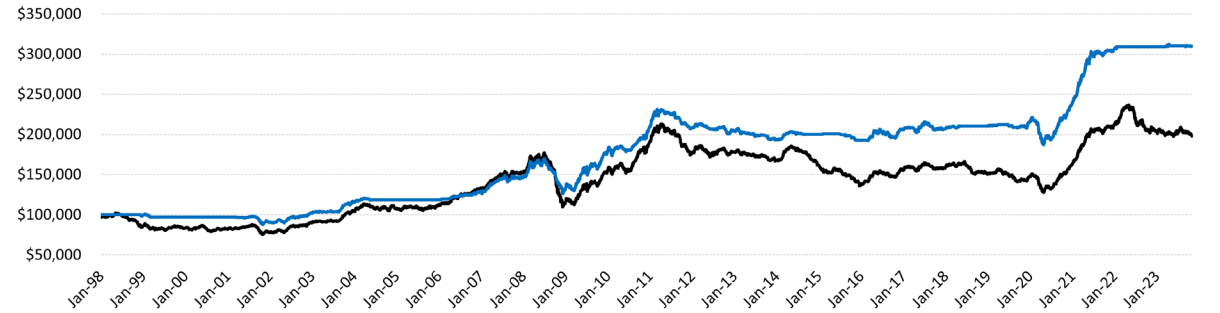
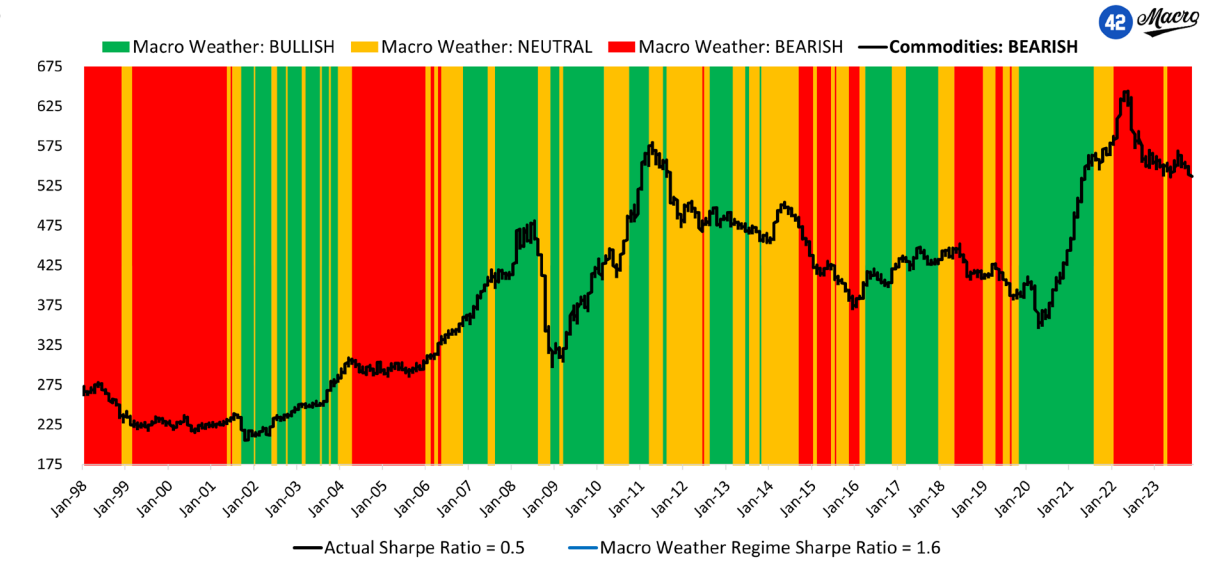


© 42 Macro LLC. Data Source: Bloomberg. Hypothetical growth of a \$100,000 investment made on 1/1/98. The backtest goes long the exposure at the close in the subsequent trading day following a fresh bullish signal, cuts the position in half at the close in the subsequent trading day following a fresh neutral signal, and closes the long position at the close in the subsequent trading day following a fresh bearish signal. The lag is designed to simulate real-world trading conditions. The process works in reverse when exiting bearish periods.

Weather Model Composite Signal: US Dollar

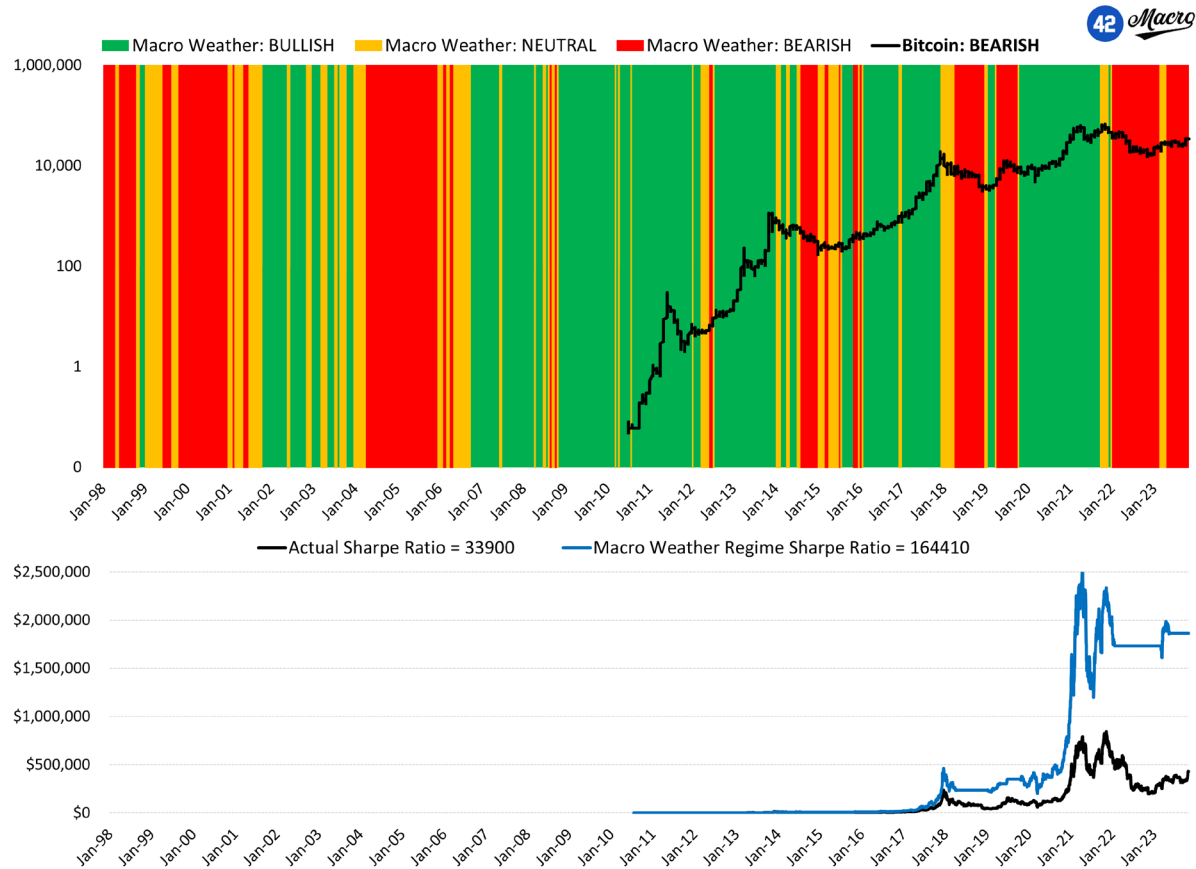


Weather Model Composite Signal: Commodities



© 42 Macro LLC. Data Source: Bloomberg. Hypothetical growth of a \$100,000 investment made on 1/1/98. The backtest goes long the exposure at the close in the subsequent trading day following a fresh bullish signal, cuts the position in half at the close in the subsequent trading day following a fresh neutral signal, and closes the long position at the close in the subsequent trading day following a fresh bearish signal. The lag is designed to simulate real-world trading conditions. The process works in reverse when exiting bearish periods.

Weather Model Composite Signal: Bitcoin



© 42 Macro LLC. Data Source: Bloomberg. Hypothetical growth of a \$1 investment made on 7/19/10 (first day of Bloomberg data). The backtest goes long the exposure at the close in the subsequent trading day following a fresh bullish signal, cuts the position in half at the close in the subsequent trading day following a fresh neutral signal, and closes the long position at the close in the subsequent trading day following a fresh bearish signal. The lag is designed to simulate real-world trading conditions. The process works in reverse when exiting bearish periods.

We Use The @42Macro Global Liquidity Monitor To Track And Anticipate Changes In Key Macro Narratives

@42Macro Global Liquidity Monitor (11/2/23)	GROWTH												INFLATION						POLICY												SYSTEMATIC TRADE IDEAS								
	Real GDP QoQ SAAR*			Composite PMI			Unemployment			Econ Surprises			Headline CPI YoY			Core CPI YoY*			Inflation Surprises			Liquidity Proxy			Policy Rate			Fiscal Balance*			Current Account			REER*			Stocks	Bonds	FX
	Delta	Level	Trend	Delta	Level	Trend*	Delta	Level	Trend	Delta	Level	Trend	Delta	Level	Trend	Delta	Level	Trend	Delta	Level	Trend	Delta	Level	Trend	Delta	Level	Trend	Delta	Level	Trend	Delta	Level	Trend	Delta	Level	Trend			
Global	↑	2.0%	(0.0)	↓	50.5	(0.9)	↓	4.8%	(1.4)	↑	15	0.2	↑	6.2%	1.1	↑	6.6%	2.0	↑	(7)	(0.4)	↓	\$129.5	1.2	↑	4.15%	3.3	↑	-4.8%	(0.3)	↑	-0.4%	(1.1)	↓	91	(1.8)	n/a	↓	n/a
Australia	→	1.6%	(0.1)	↓	47.3	(1.1)	↑	3.6%	(1.9)	↑	18	(0.2)	↑	5.6%	1.0	↓	5.2%	1.7	↑	(15)	(0.3)	↓	\$2.3	1.2	→	4.07%	2.4	↑	1.4%	1.1	↓	1.2%	0.9	↓	106	(0.2)	n/a	n/a	n/a
Brazil	↓	3.6%	0.3	↓	49.0	(1.0)	↓	7.7%	(1.2)	-	-	-	↑	5.2%	(0.3)	↓	6.0%	0.1	-	-	-	↓	\$2.3	(0.0)	↓	12.25%	0.7	↓	-7.3%	(0.1)	↑	-2.7%	0.1	↑	117	(0.4)	↓	n/a	n/a
Canada	↓	-0.2%	(0.3)	↑	53.1	(0.4)	↑	5.5%	(0.8)	↑	32	0.0	↑	3.8%	0.7	↓	3.2%	0.8	↑	(15)	(0.3)	↓	\$2.1	1.1	→	5.00%	2.9	↑	-3.2%	(0.3)	↓	-1.0%	1.1	↓	101	(0.6)	n/a	n/a	n/a
China	↑	5.2%	(0.1)	↓	50.7	(0.5)	↓	5.0%	(0.8)	↑	8	0.3	→	0.0%	(1.8)	↑	0.8%	(1.1)	↑	(58)	(1.9)	↓	\$48.5	1.0	↓	3.45%	(1.3)	↓	-4.7%	(0.8)	↓	2.2%	0.7	↑	92	(1.9)	n/a	n/a	↓
Eurozone	↓	-0.4%	(0.2)	↓	46.5	(1.4)	↓	6.4%	(1.4)	↑	(47)	(0.7)	↓	2.9%	0.3	↓	4.2%	1.7	↓	(14)	(0.5)	↓	\$23.7	0.8	↑	4.00%	3.9	↓	-3.8%	(0.6)	↑	0.2%	(2.0)	↑	102	0.9	↓	n/a	n/a
India	↑	7.8%	0.3	↑	61.0	1.2	↑	8.0%	0.2	-	-	-	↑	5.0%	(0.2)	↓	4.6%	(0.6)	-	-	-	↓	\$3.1	1.3	→	6.50%	0.5	↓	-6.6%	(1.2)	↑	-1.7%	(0.3)	↑	101	0.7	n/a	n/a	n/a
Japan	↑	4.8%	0.6	↓	49.9	(0.2)	↑	2.6%	(0.7)	↑	7	0.1	↓	3.0%	1.5	↓	2.8%	1.4	↓	(9)	(0.8)	↓	\$14.3	0.2	→	-0.10%	(0.5)	↓	-6.7%	(0.6)	↑	2.2%	(0.5)	↓	72	(2.4)	n/a	n/a	n/a
Switzerland	↓	0.0%	(0.3)	↑	40.6	(2.0)	↑	2.1%	(1.5)	↑	(8)	(0.3)	↑	1.7%	1.0	↓	1.5%	1.5	↑	(31)	(1.0)	↓	\$2.8	0.3	→	-0.75%	(0.6)	↑	1.4%	1.0	↑	9.8%	1.3	↑	101	1.2	n/a	n/a	n/a
United Kingdom	↓	0.8%	(0.1)	↓	48.6	(1.0)	↑	4.3%	(0.4)	↓	(12)	(0.6)	↓	6.7%	1.3	↓	6.1%	2.0	↓	44	0.8	↓	\$5.8	0.8	↑	5.25%	3.5	↓	-5.6%	(0.1)	↑	-1.8%	1.4	↓	108	0.7	↓	n/a	n/a
United States	↑	4.9%	0.3	↑	53.1	(0.9)	↑	3.8%	(0.7)	↓	54	0.8	↑	3.7%	0.4	↓	3.7%	1.0	↑	3	0.1	↓	\$28.6	1.2	→	5.50%	2.8	↑	-6.3%	(0.2)	↑	-3.2%	(1.2)	↑	109	1.7	n/a	n/a	n/a

Intellectual property of 42 Macro LLC. Data Source: Bloomberg. Delta = trailing 3mo Momentum. Trend = trailing 10yr Z-Score of latest value, except for the Composite PMI which is trailing 3yrs. Geographies in alphabetical order. The @42Macro Liquidity Proxy is the nominal \$tn sum of the Central Bank Balance Sheet, Broad Money Supply, and FX Reserves ex-Gold. India Real GDP YoY, not QoQ annualized. Citi Economic and Inflation Surprise indices. US Core PCE Deflator. Sovereign Fiscal Balance and Current Account Balance quoted as shares of Nominal GDP. REER = Real Effective Exchange Rate. Sovereign Fiscal Balance figures for the World, China, and Japan are annual figures. Global REER = inverse USD REER. Systematic Trade Ideas: Long/Short Stocks = rising/falling PMI + positive/negative econ surprises + rising/falling liquidity; Long/Short Bonds = decelerating/accelerating H-CPI + decelerating/accelerating C-CPI + rising/falling liquidity; and Long/Short FX = rising/falling policy rate + rising/falling fiscal balance + rising/falling current account balance.

© 42 Macro LLC. Data Source: Bloomberg.

Highlighted systematic trade ideas include changes from the prior publication.

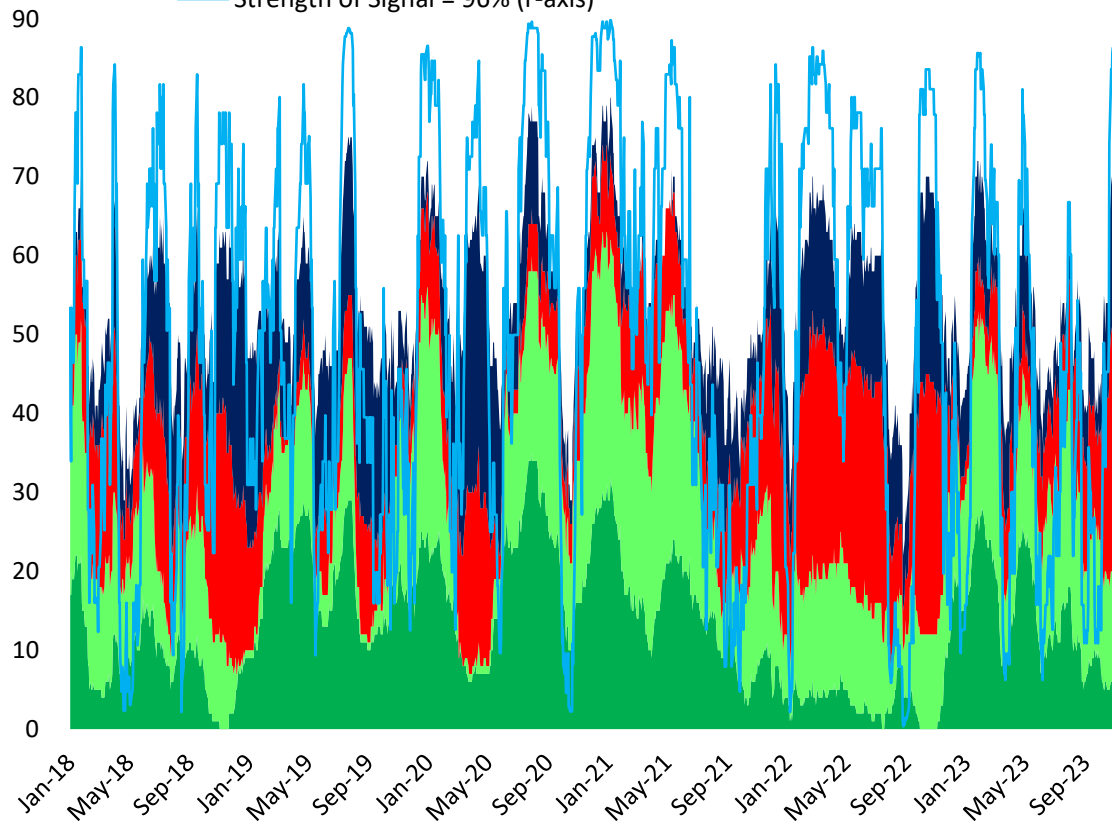
@42Macro Global Liquidity Proxy = Global Central Bank Balance Sheet

+ Global Broad Money Supply + Global FX Reserves ex-Gold.



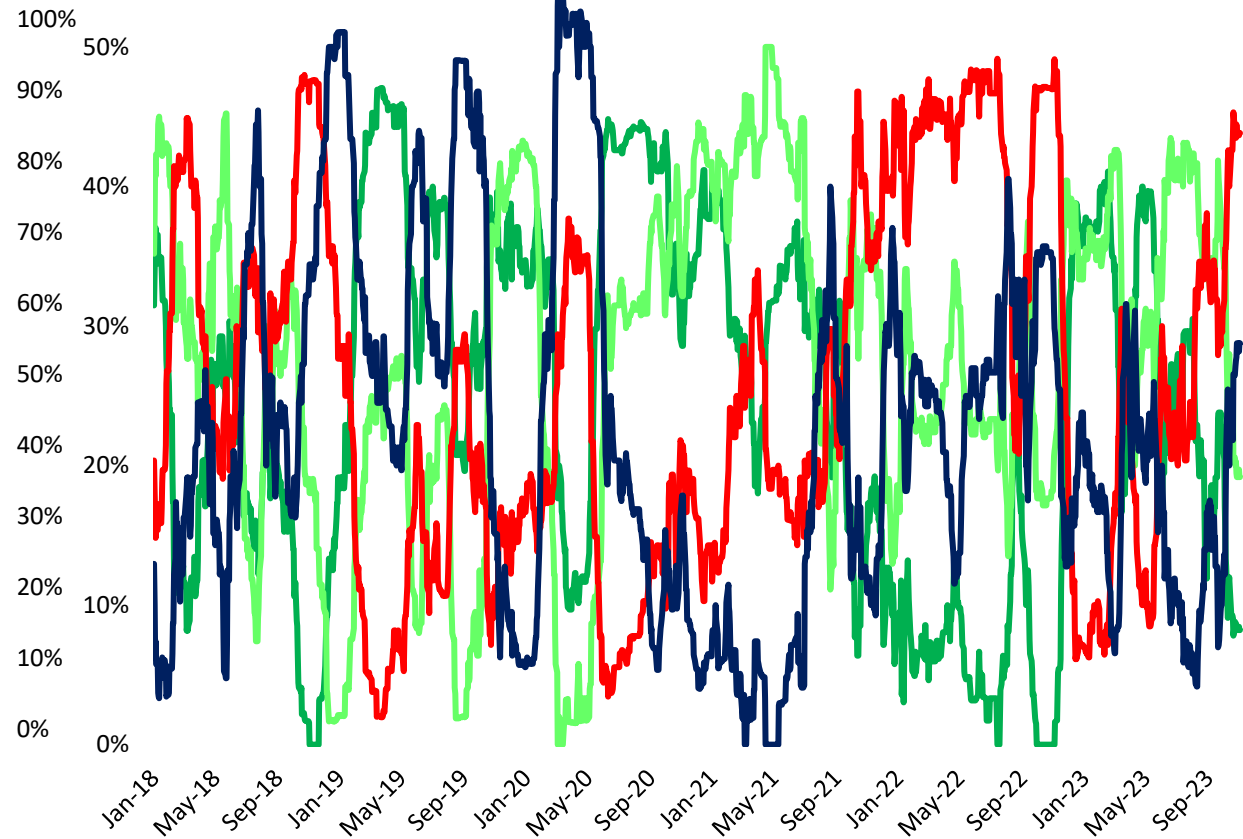
Global Macro Risk Matrix: Sum Of Confirming Markets

■ GOLDBLOCKS = 6 (t3yr peak = 32) ■ REFLATION = 14 (t3yr peak = 33)
■ INFLATION = 32 (t3yr peak = 33) ■ DEFLATION = 21 (t3yr peak = 25)
— Strength of Signal = 96% (r-axis)



Global Macro Risk Matrix: Share Of Confirming Markets

— GOLDBLOCKS = 8% (t3yr peak = 41%) — REFLATION = 19% (t3yr peak = 50%)
— INFLATION = 44% (t3yr peak = 49%) — DEFLATION = 29% (t3yr peak = 41%)

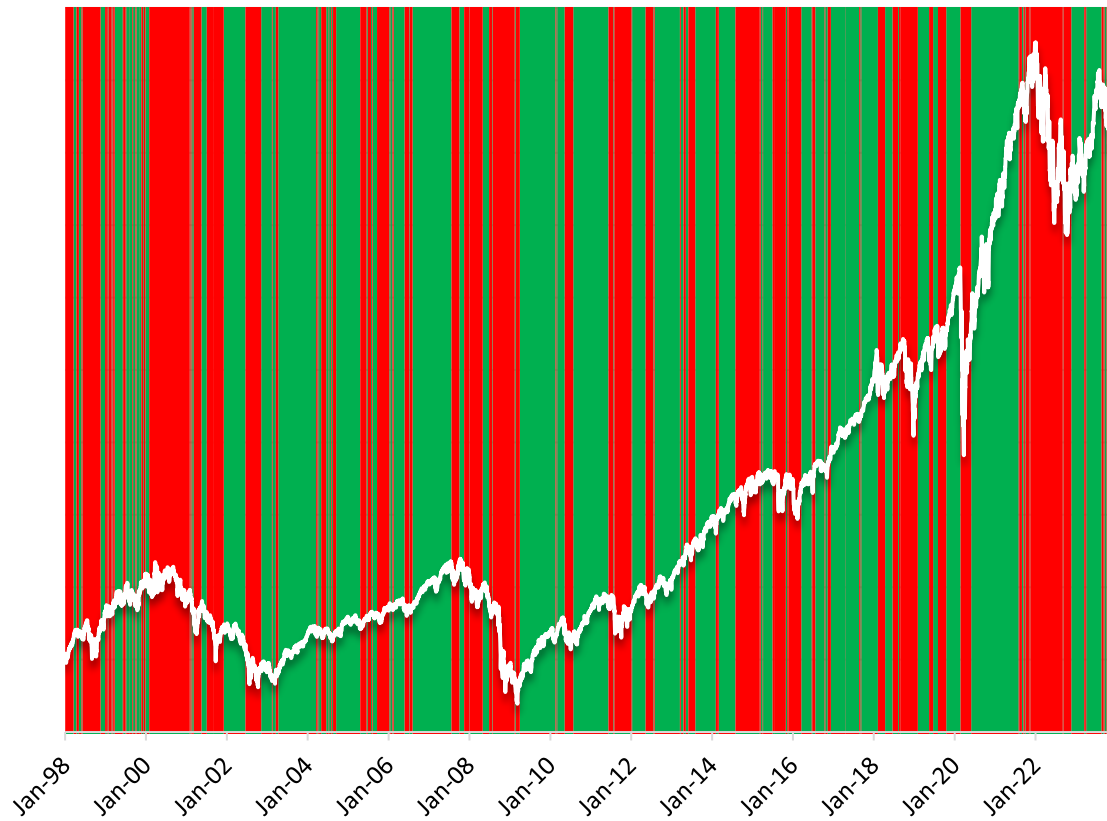


© 42 Macro LLC. Data Source: Bloomberg.

■ GOLDBLOCKS = risk on with a disinflationary bias. ■ REFLATION = risk on with an inflationary bias.
■ INFLATION = risk off with an inflationary bias. ■ DEFLATION = risk off with a disinflationary bias.

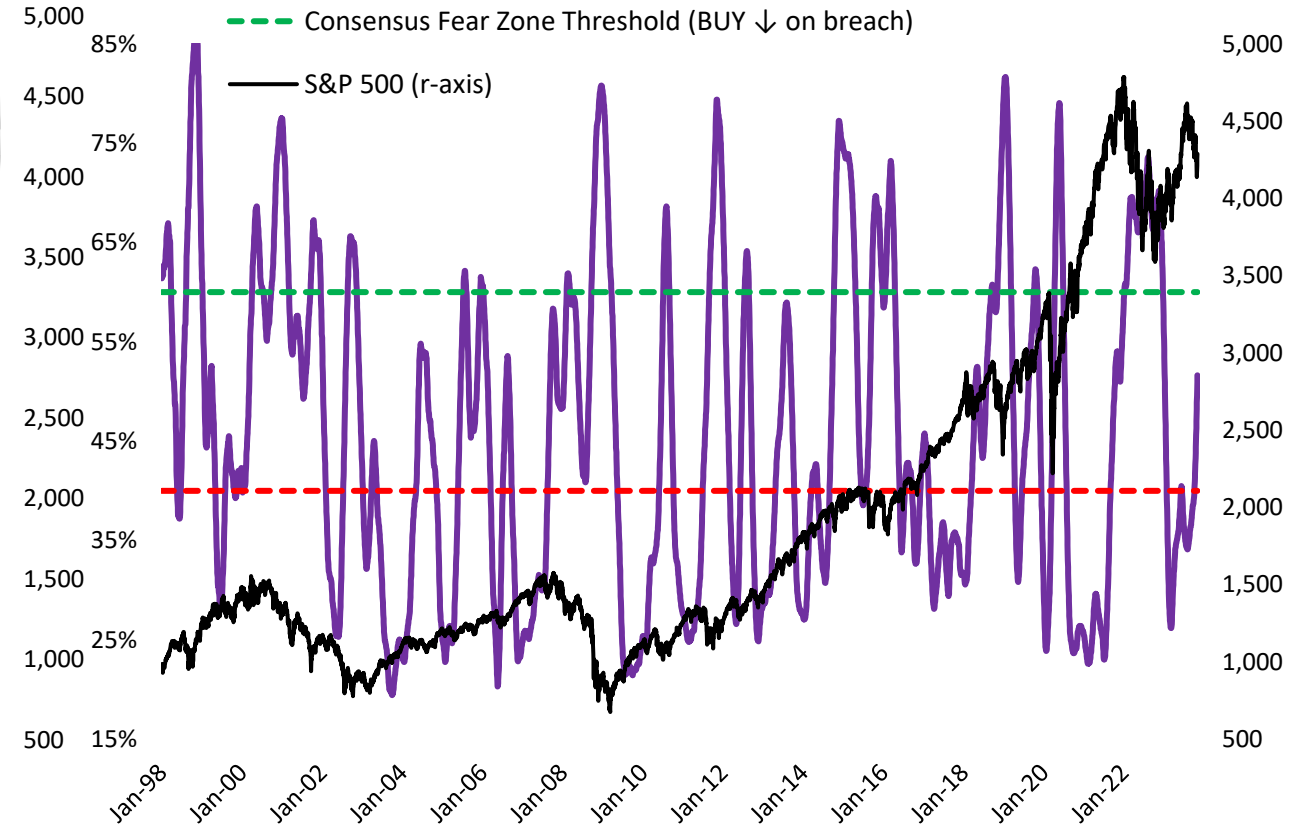
Global Macro Risk Matrix: Top-Down Market Regime

- █ Risk-On Regime (GOLDILOCKS or REFLATION)
 - █ Risk-Off Regime (INFLATION or DEFLATION)
- S&P 500 (r-axis)



Global Macro Risk Matrix: Cross-Asset Correction Risk Indicator

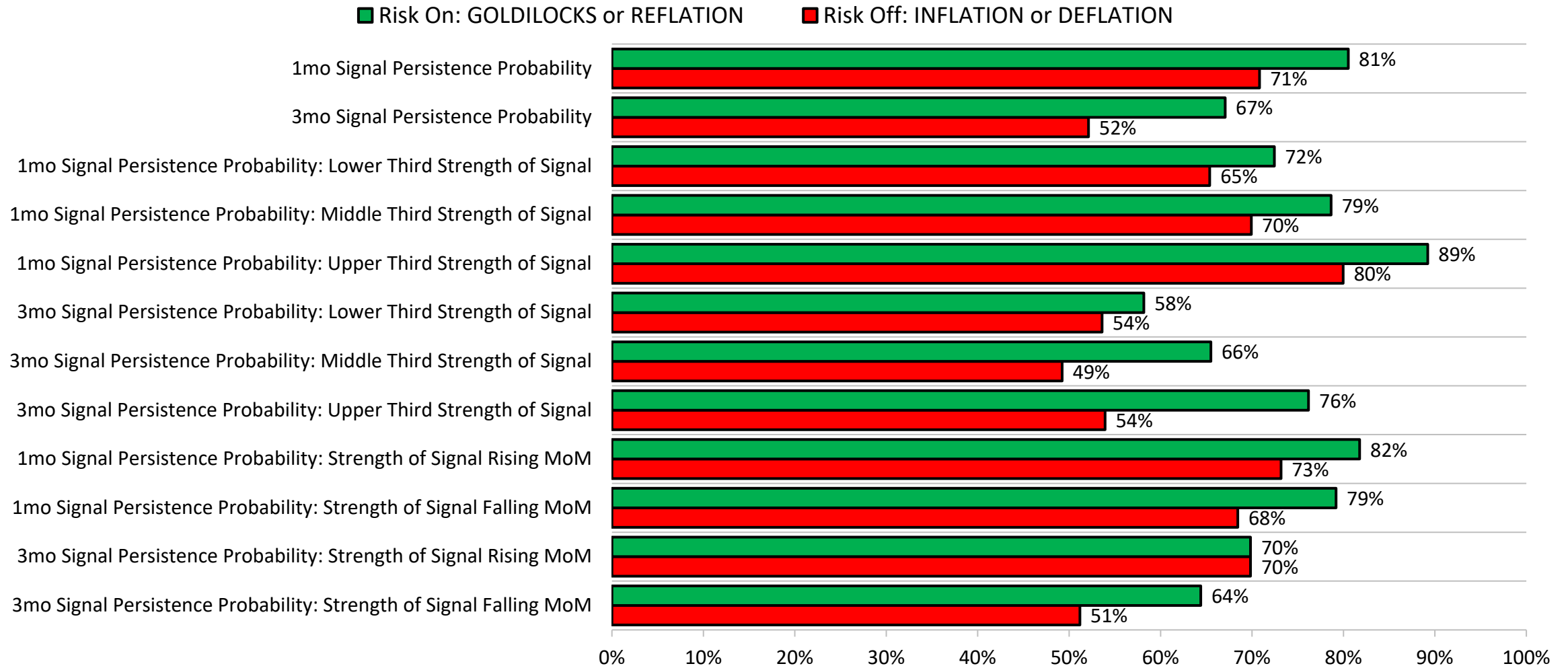
- INFLATION + DEFLATION Shares (smoothed) = 52%; RISING = Systematic SELLING; FALLING = Systematic BUYING
- - - Consensus Complacency Zone Threshold (SELL ↑ on breach)



© 42 Macro LLC. Data Source: Bloomberg.

GOLDILOCKS = risk on with a disinflationary bias. **REFLATION** = risk on with an inflationary bias.
INFLATION = risk off with an inflationary bias. **DEFLATION** = risk off with a disinflationary bias.

Global Macro Risk Matrix Top-Down Market Regime Persistence Probabilities



© 42 Macro LLC. Data Source: Bloomberg. **Bolded** figures correspond to the current setup. Study begins in Jan-98.

GOLDILOCKS = risk on with a disinflationary bias. **REFLATION** = risk on with an inflationary bias.

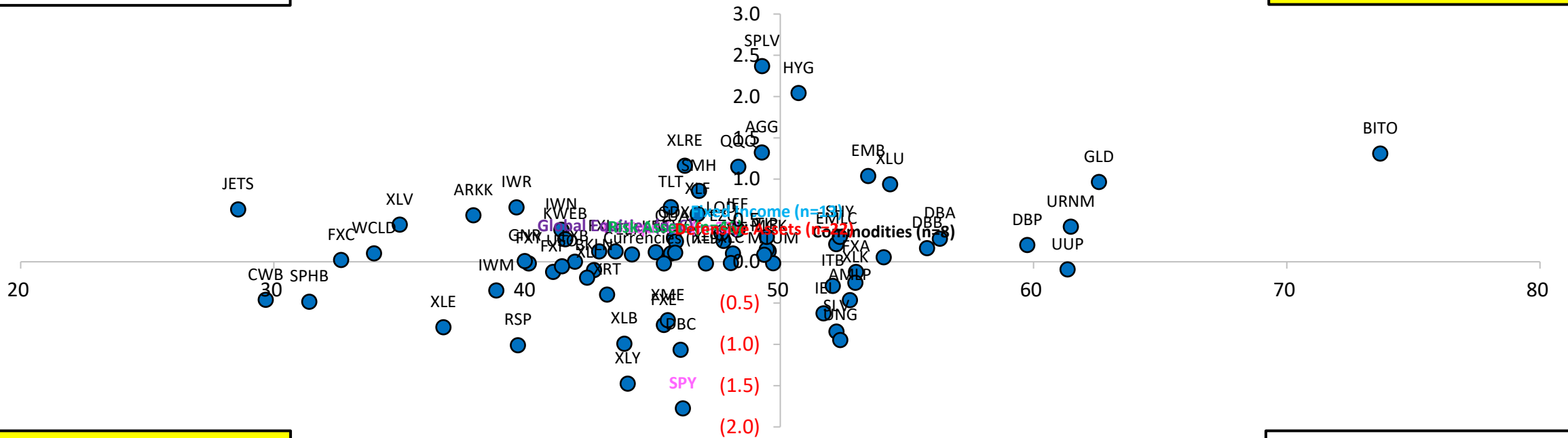
INFLATION = risk off with an inflationary bias. **DEFLATION** = risk off with a disinflationary bias.

We Use Our Crowding Model To Spot Tactical Trading Opportunities Across Global Asset Markets

Fund Flow Dynamics: NOISE
 -Underlying Asset Oversold
 -Investors Buying the Dip
 Already

● x-axis: 14-Day RSI;
 y-axis: 3mo Z-Score of ETF Fund Flows; 11/2/2023

Fund Flow Dynamics: SIGNAL
 -Underlying Asset Overbought
 -Investors Chasing Local Highs

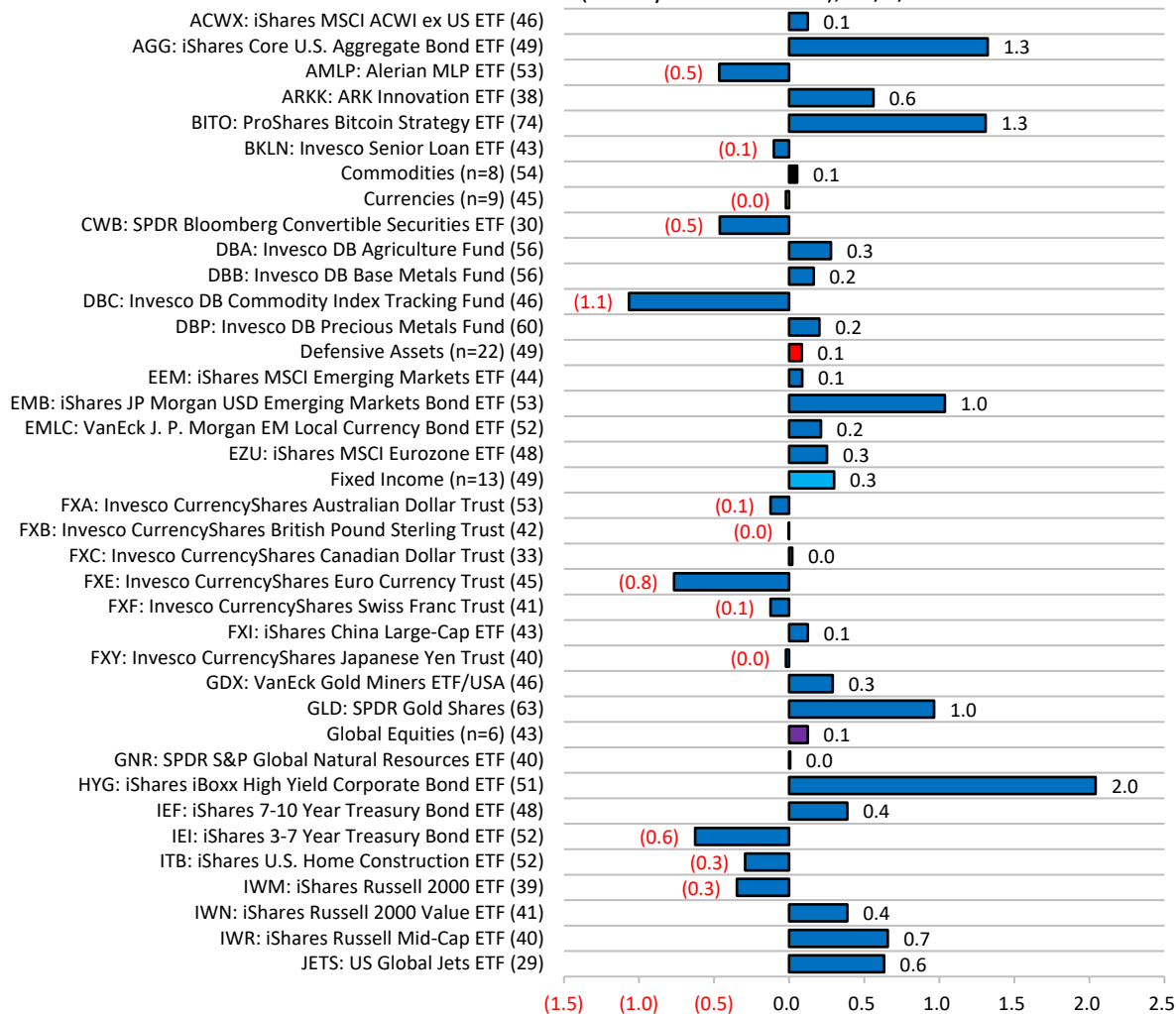


Fund Flow Dynamics: SIGNAL
 -Underlying Asset Oversold
 -Investors Puking Local Lows

Fund Flow Dynamics: NOISE
 -Underlying Asset Overbought
 -Investors Selling the Rip
 Already

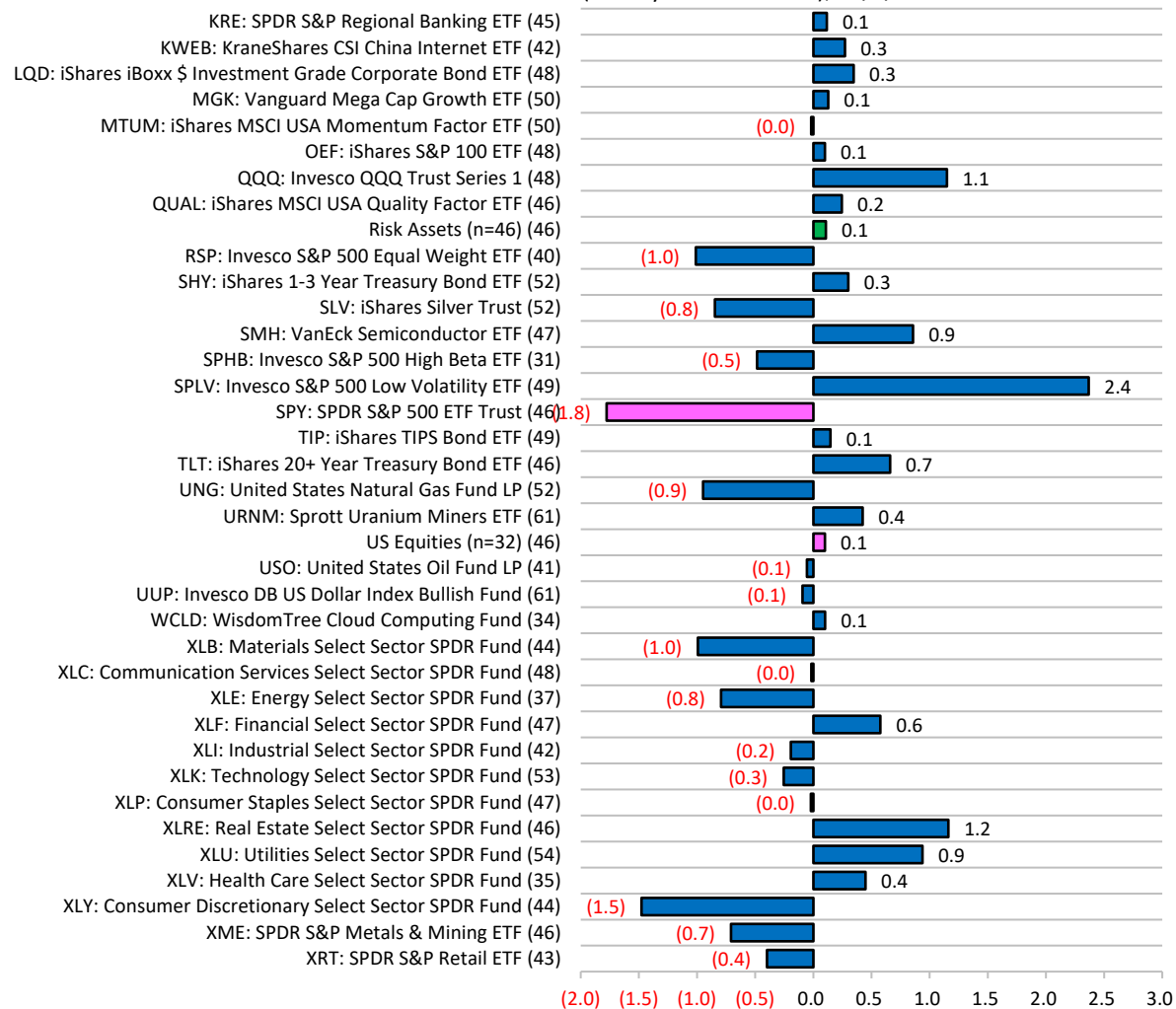
Crowding Bar Chart

3mo Z-Score of ETF Fund Flows (14-Day RSI in brackets); 11/2/2023



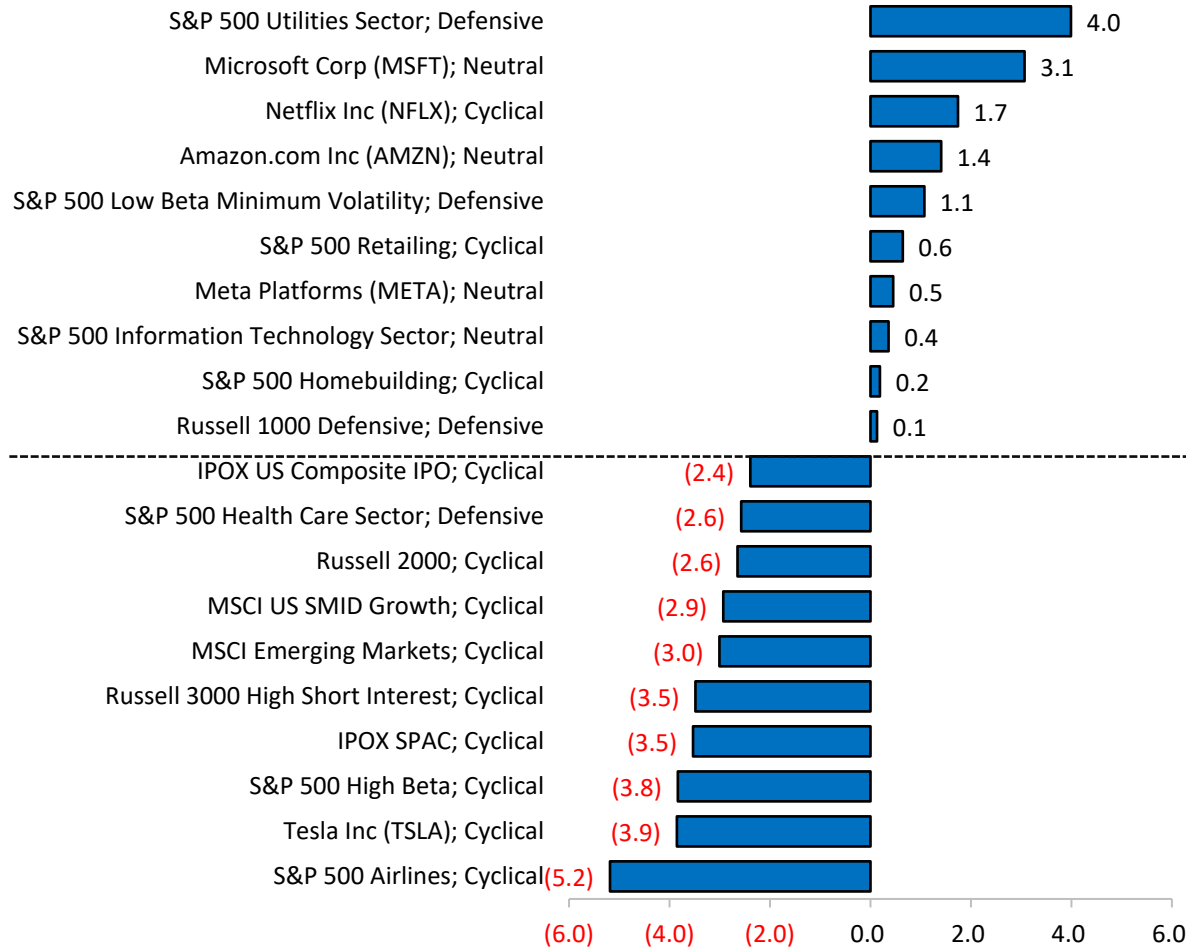
Crowding Bar Chart (cont.)

3mo Z-Score of ETF Fund Flows (14-Day RSI in brackets); 11/2/2023



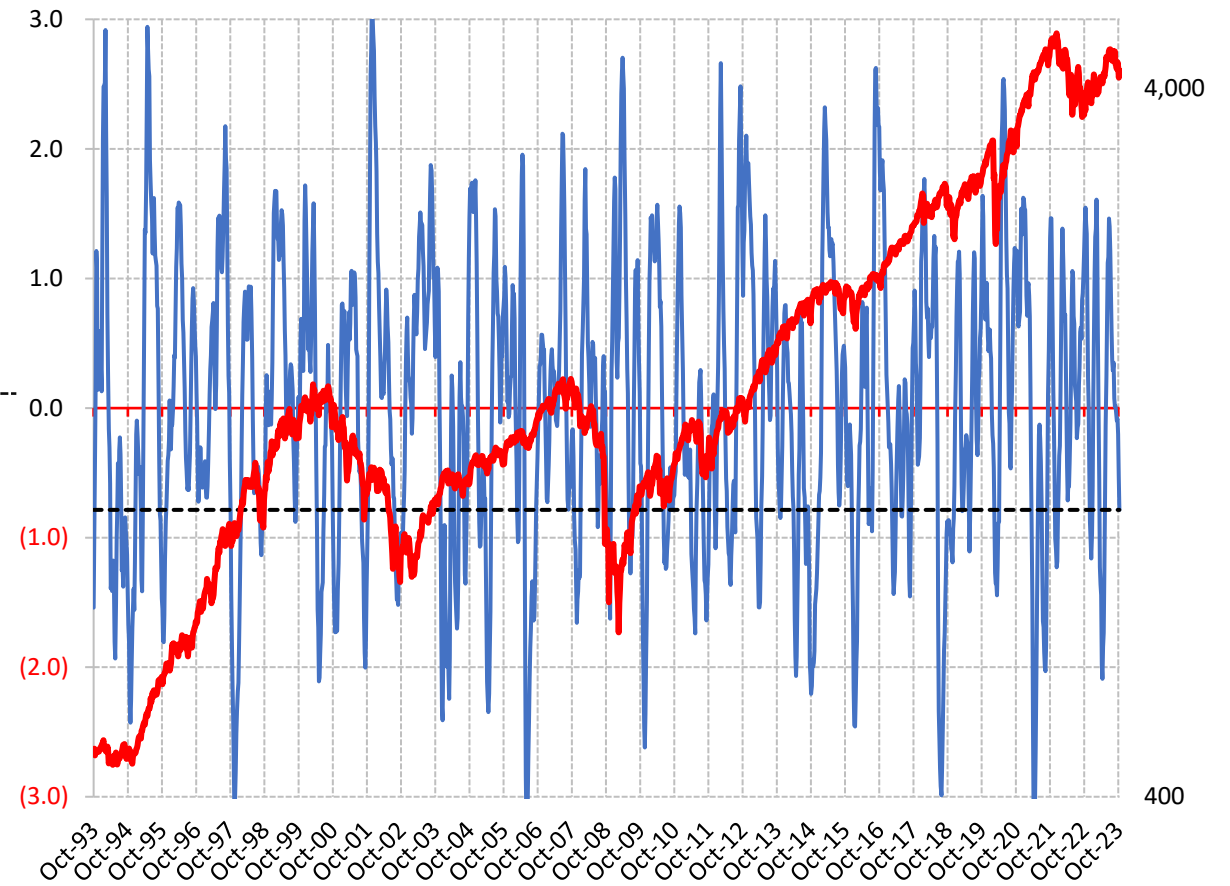
Dispersion Bar Chart

■ US Equity Sector & Style Factor MoM Sharpe Ratio
DISPERSION Study (n=44); 11/2/2023



Dispersion Time Series

— 1yr Z-Score of the Trailing 2mo Mean of the Number of Cyclical Sectors & Style Factors in the Upper Quartile + Number of Defensive Sectors & Style Factors in the Lower Quartile; (n=44)
----- Latest = -0.8

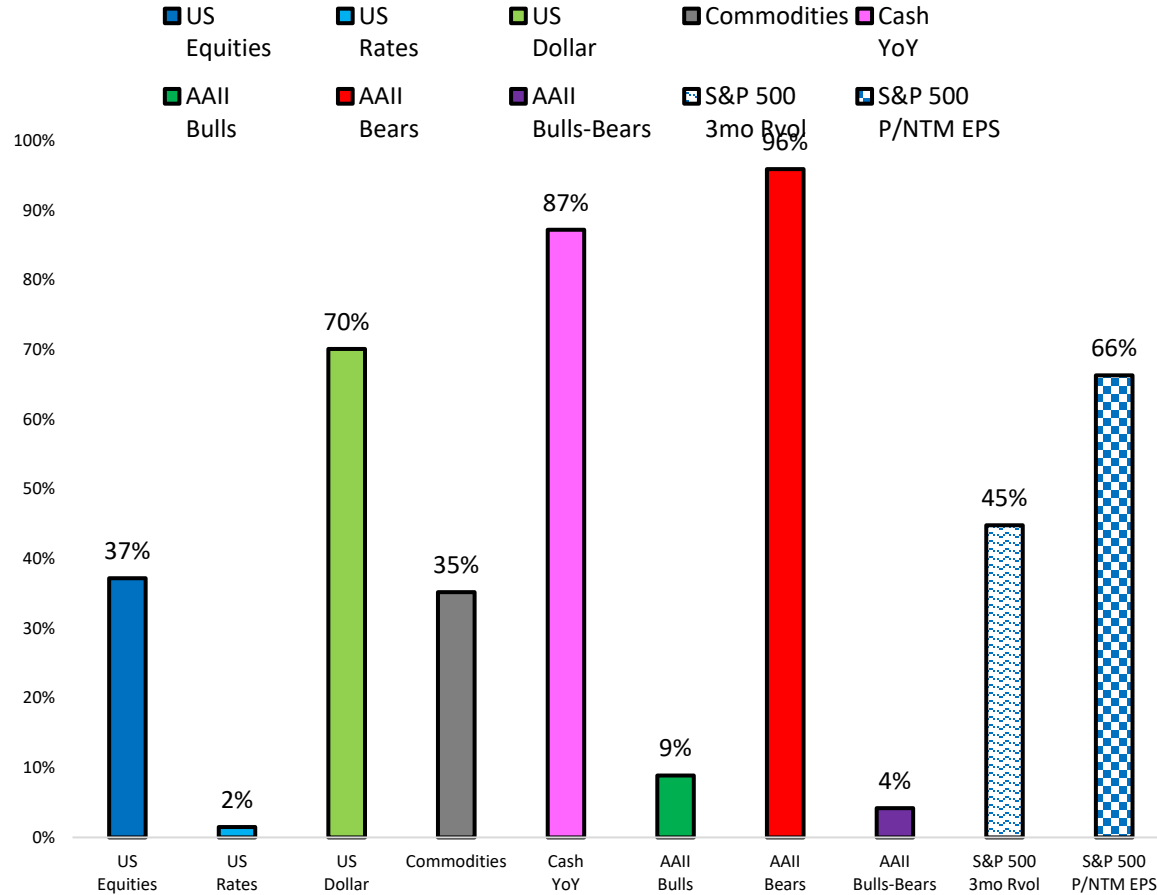


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A HIGH number in the DISPERSION Time Series chart implies market internals have rotated in favor of Cyclical.
A LOW number in the DISPERSION Time Series chart implies market internals have rotated in favor of Defensives.

Aggregated Cross-Asset Positioning: Latest

Aggregated POSITIONING: Non-Commercial Net Length as a % of Total Open Interest (Percentile Ranking of the Latest Value)



Aggregated Cross-Asset Positioning: All-Time

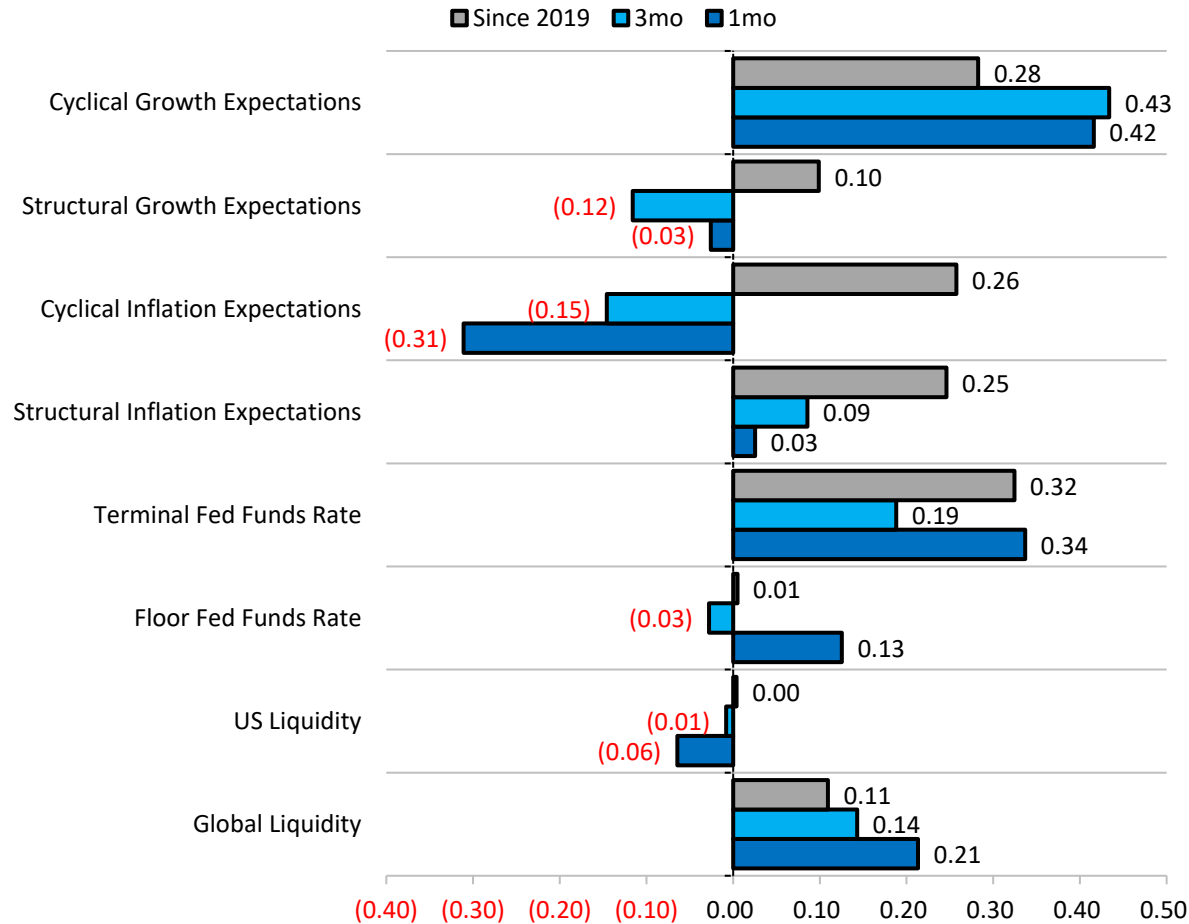
S&P 500 Peaks	US Equities	US Rates	US Dollar	Commodities	Cash YoY	AAll Bulls	AAll Bears	AAll Bulls-Bears Spread	SPX 3mo Rvol	SPX P/NTM EPS
Aug-87						91%	50%	80%	29%	
Jul-90					76%	60%	50%	56%	43%	
Jul-98	33%	73%	69%	7%	84%	41%	13%	65%	53%	95%
Mar-00	56%	75%	86%	57%	67%	100%	10%	98%	90%	93%
Oct-07	18%	95%	8%	61%	94%	94%	32%	90%	79%	30%
Apr-11	62%	97%	0%	88%	11%	53%	53%	50%	48%	7%
Sep-18	72%	2%	93%	19%	44%	32%	60%	34%	6%	53%
Feb-20	61%	22%	38%	48%	71%	63%	45%	60%	17%	80%
Jan-22	70%	15%	74%	94%	53%	34%	64%	34%	52%	86%
MEDIAN	61%	73%	69%	57%	69%	60%	50%	60%	48%	80%
25th Percentile	44%	19%	23%	33%	51%	41%	32%	50%	29%	41%
75th Percentile	66%	85%	80%	74%	78%	91%	53%	80%	53%	89%

S&P 500 Troughs	US Equities	US Rates	US Dollar	Commodities	Cash YoY	AAll Bulls	AAll Bears	AAll Bulls-Bears Spread	SPX 3mo Rvol	SPX P/NTM EPS
Dec-87						10%	86%	10%	99%	
Oct-90					70%	3%	97%	2%	81%	
Sep-98	2%	85%	95%	0%	89%	6%	82%	10%	91%	80%
Mar-03	12%	98%	13%	27%	19%	40%	97%	10%	82%	12%
Mar-09	88%	31%	47%	23%	58%	17%	98%	4%	97%	0%
Oct-11	16%	74%	69%	43%	10%	43%	91%	18%	96%	0%
Dec-18	70%	10%	86%	49%	51%	30%	96%	9%	84%	13%
Mar-20	41%	40%	39%	31%	98%	34%	97%	9%	98%	19%
Oct-22	24%	5%	79%	69%	33%	3%	99%	1%	87%	28%
MEDIAN	24%	40%	69%	31%	54%	17%	97%	9%	91%	13%
25th Percentile	14%	21%	43%	25%	29%	6%	91%	4%	84%	6%
75th Percentile	56%	79%	82%	46%	74%	34%	97%	10%	97%	23%

Intellectual property of 42 Macro LLC. Data Source: Bloomberg. Cash YoY = ICI Money Market Fund Total Assets.

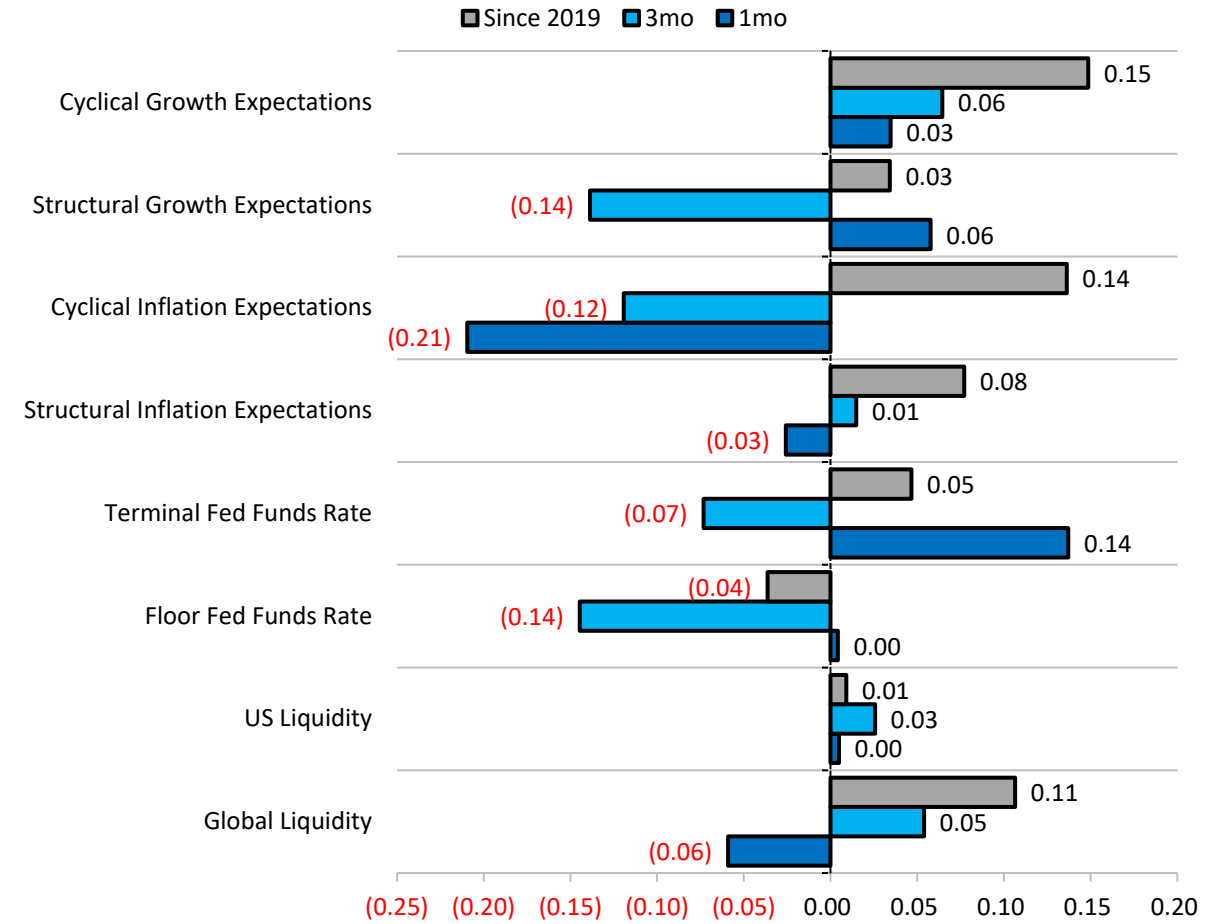
Multi-Factor Correlation Study: S&P 500

What's Driving the Market?: Daily Log Price Change Correlations b/tw S&P 500 and Various Macro Factors



Multi-Factor Correlation Study: Bitcoin

What's Driving the Market?: Daily Log Price Change Correlations b/tw Bitcoin and Various Macro Factors



© 42 Macro LLC. Data Source: Bloomberg. Cyclical Growth Expectations proxied by Front-Month Copper Futures. Structural Growth Expectations proxied by the 10yr TIPS Yield. Cyclical Inflation Expectations proxied by Front-Month Brent Crude Oil Futures. Structural Inflation Expectations proxied by the 10yr TIPS Breakeven. US Liquidity proxied by @42Macro Net Liquidity. Global Liquidity proxied by the @42Macro Global Liquidity Proxy.

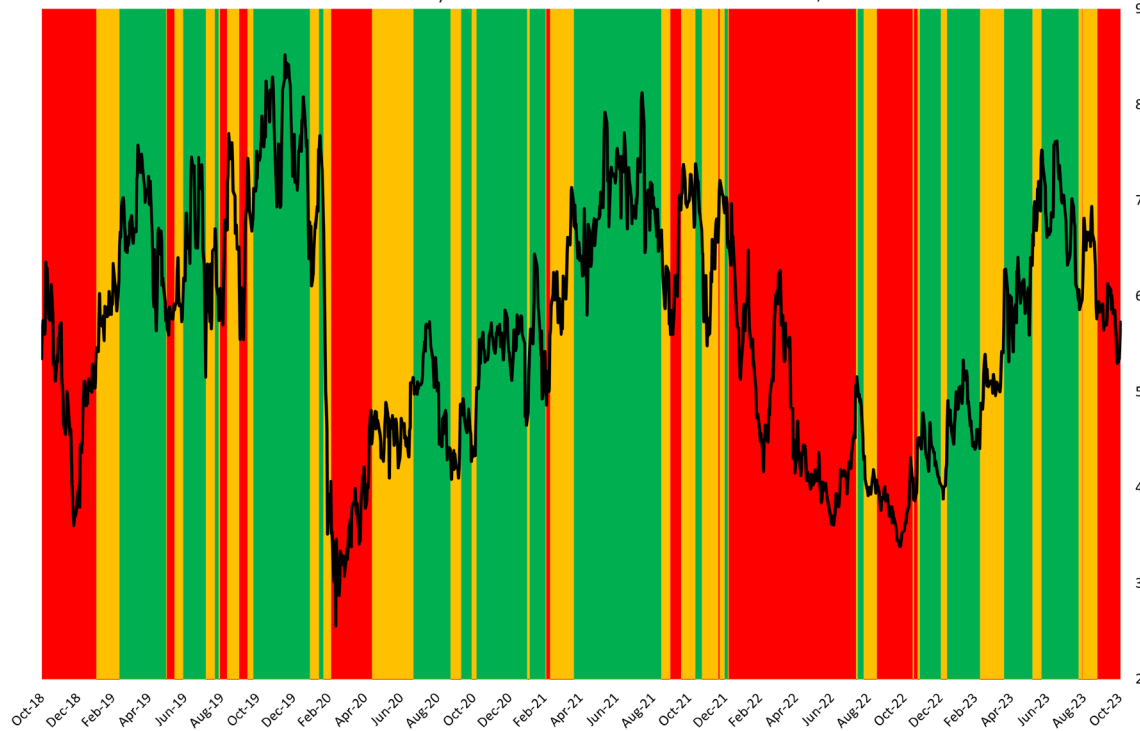
VVIX/VIX Ratio

High Beta/Low Beta Ratio

VVIX vs VIX Ratio (.VVIX/VIX) = 5.23; BEARISH



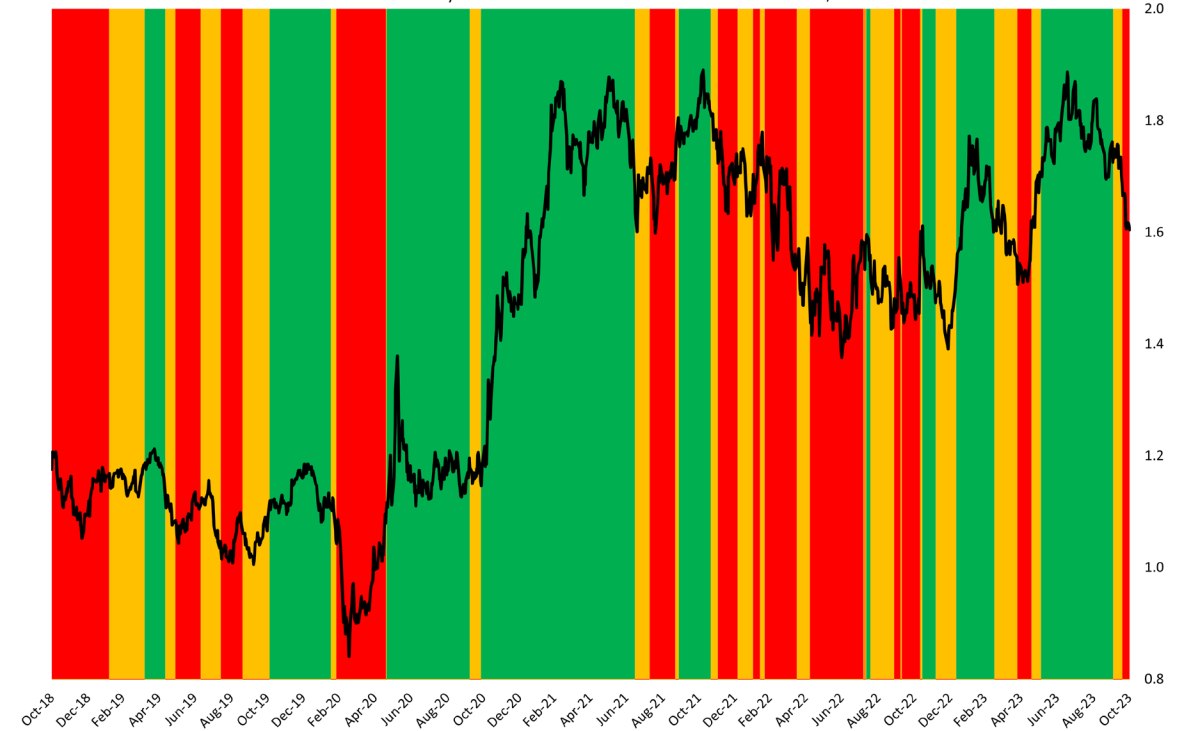
- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = n/a
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = n/a
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = n/a



High Beta/Low Beta Ratio (.HBLB) = 1.6; BEARISH



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = n/a
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = n/a
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = n/a



© 42 Macro LLC. Data Source: Bloomberg. GREEN = bullish VAMS, ORANGE = neutral VAMS, and RED = bearish VAMS.

Volatility adjustment factor for the VVIX/VIX Ratio = Goldman Sachs US Financial Conditions Index.

Volatility adjustment factor for the High Beta/Low Beta Ratio = USD High Yield OAS.

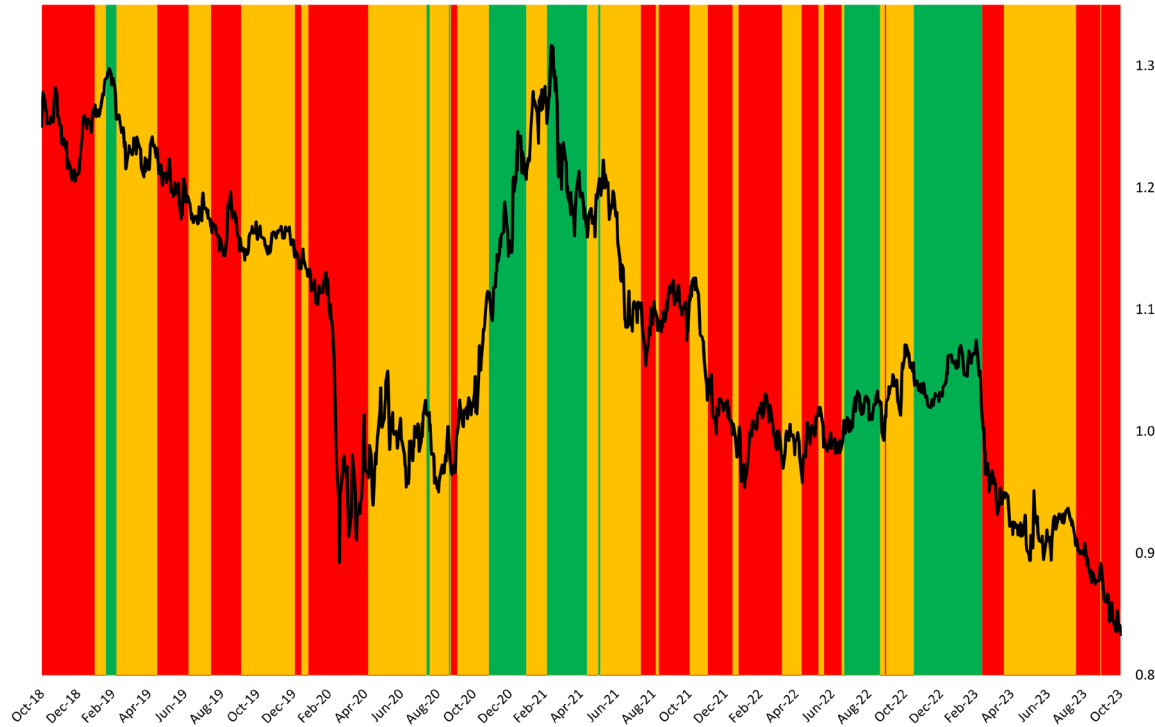
Small Cap/Mega Cap Ratio

Value/Growth Ratio

Small Cap/Mega Cap Ratio (.SCMC) = 0.83; BEARISH



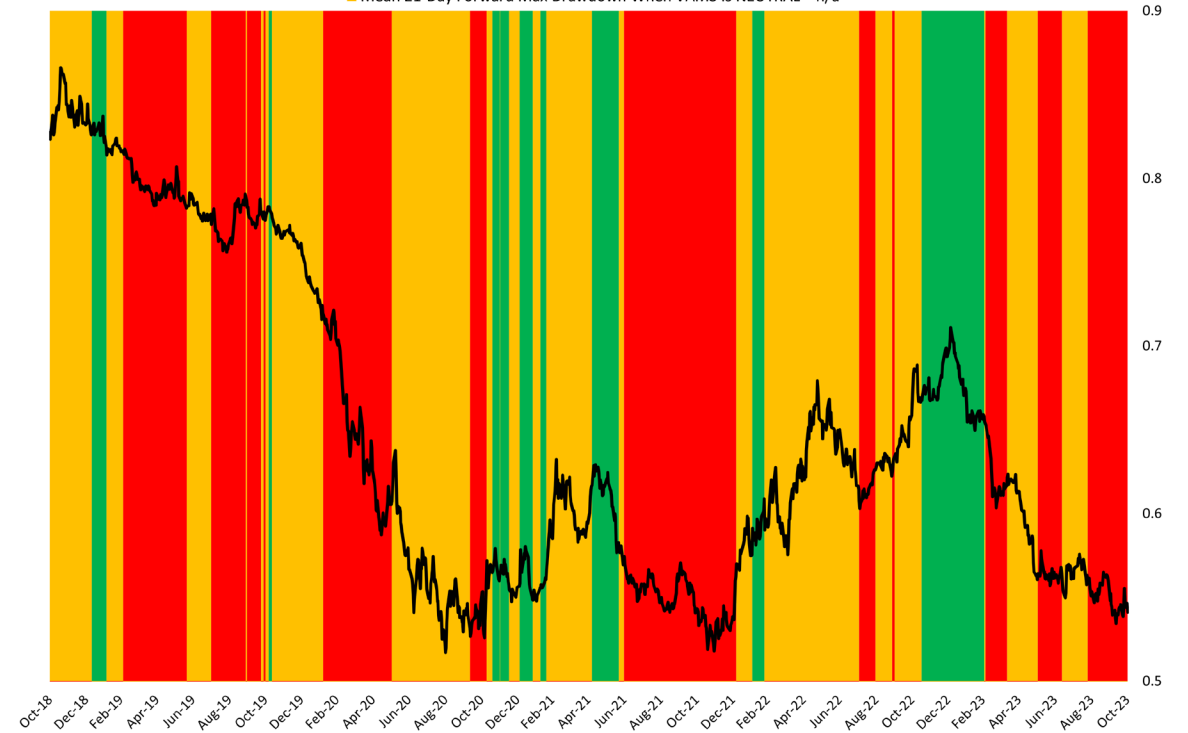
- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = n/a
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = n/a
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = n/a



Value/Growth Ratio (.VALGRO) = 0.54; BEARISH



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = n/a
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = n/a
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = n/a



© 42 Macro LLC. Data Source: Bloomberg. GREEN = bullish VAMS, ORANGE = neutral VAMS, and RED = bearish VAMS.

Volatility adjustment factor for the Small Cap/Mega Cap Ratio = VIX.

Volatility adjustment factor for the Value/Growth Ratio = US Dollar Index.

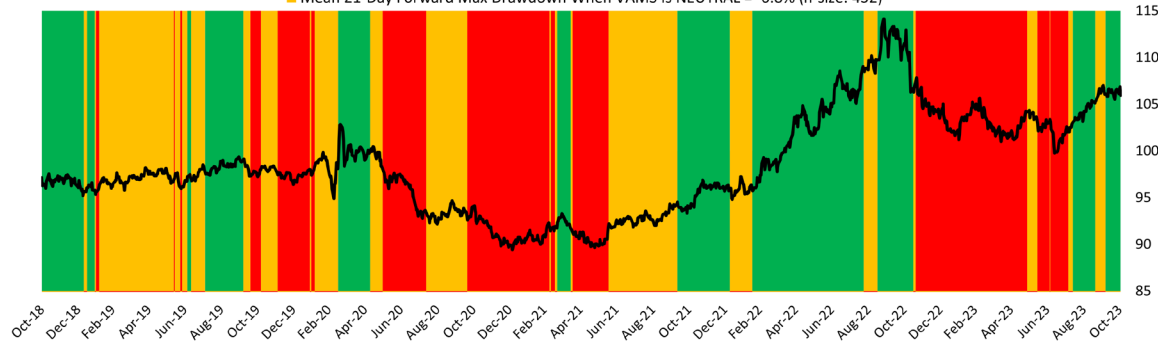
US Dollar

Gold

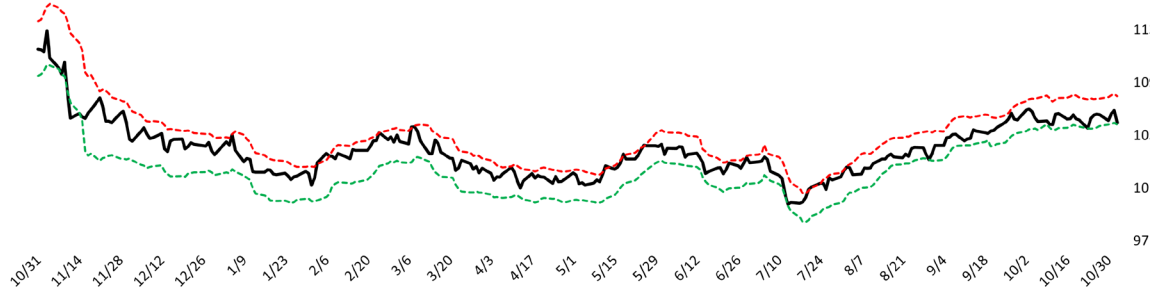
US Dollar Index (DXY) = 105.95; BULLISH



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -1.3% (n-size: 525)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -1.3% (n-size: 432)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -0.8% (n-size: 432)



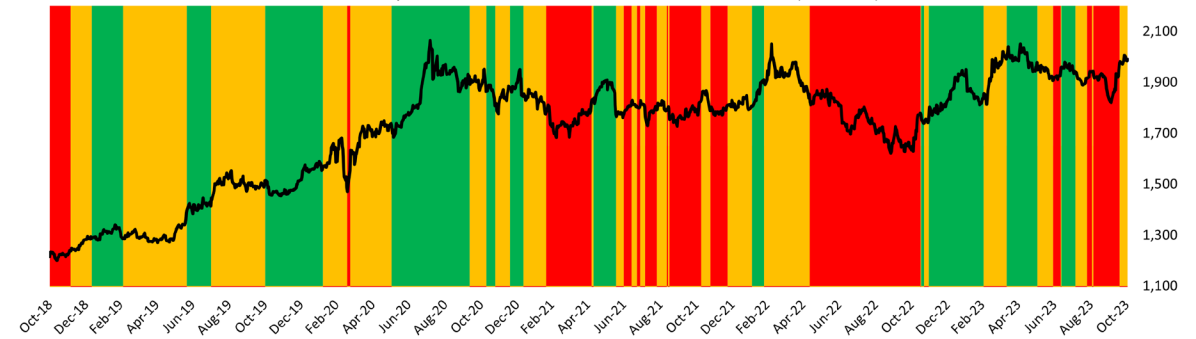
- DOLLAR INDEX SPOT (DXY) = 105.95
- - - Lower Boundary of Probable Range = -0.13/-0.1% to 105.82; Mean 5-Day Forward % Change When Px < LBoPR = 0.5% (n-size: 26)
- - - Upper Boundary of Probable Range = 2.02/1.9% to 107.97; Mean 5-Day Forward % Change When Px > UBoPR = 0.3% (n-size: 37)



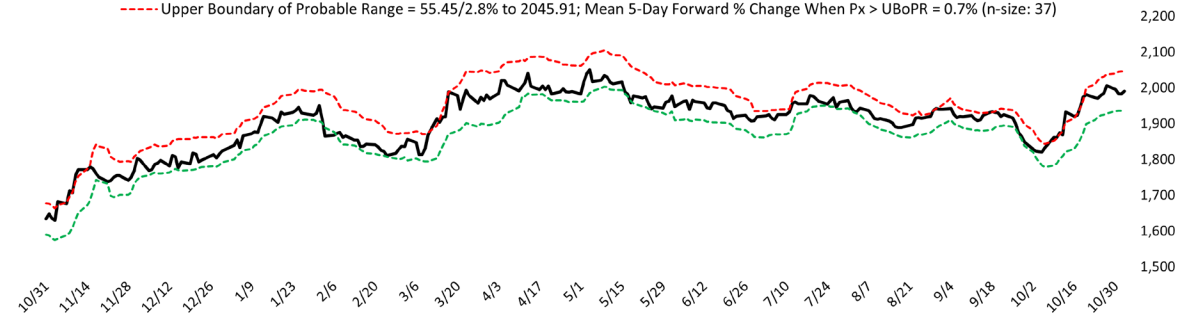
Gold Spot \$/oz (XAU) = 1990; NEUTRAL



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -2% (n-size: 422)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -2.3% (n-size: 430)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -2% (n-size: 537)



- Gold Spot \$/Oz (XAU) = 1990.46
- - - Lower Boundary of Probable Range = -52.64/-2.6% to 1937.82; Mean 5-Day Forward % Change When Px < LBoPR = 0.3% (n-size: 28)
- - - Upper Boundary of Probable Range = 55.45/2.8% to 2045.91; Mean 5-Day Forward % Change When Px > UBoPR = 0.7% (n-size: 37)



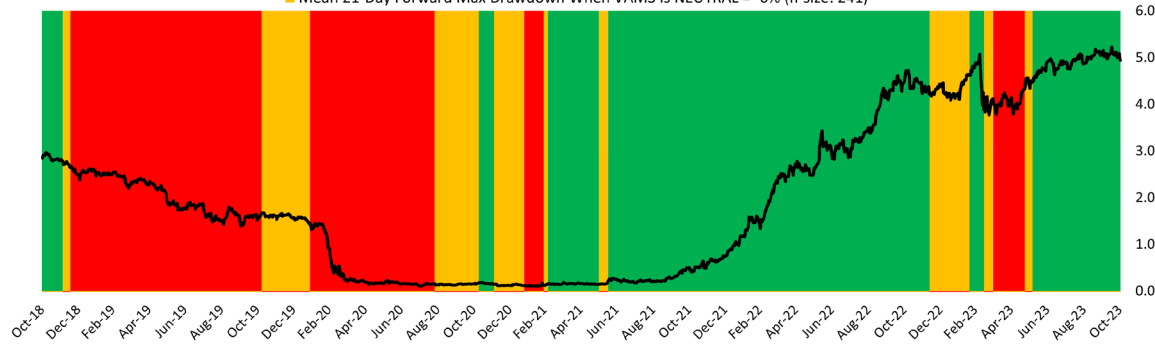
2yr Nominal Treasury Yield

10yr Nominal Treasury Yield

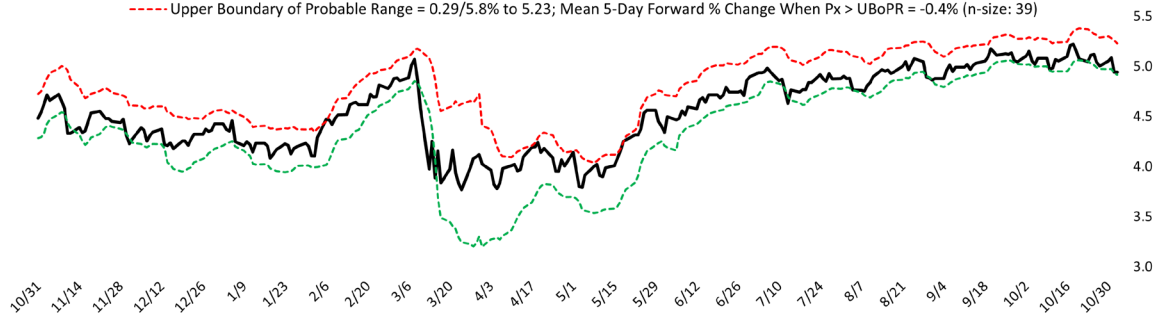
2yr Nominal Treasury Yield (USGG2YR) = 4.94; BULLISH



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -8.1% (n-size: 711)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -15.7% (n-size: 445)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -6% (n-size: 241)



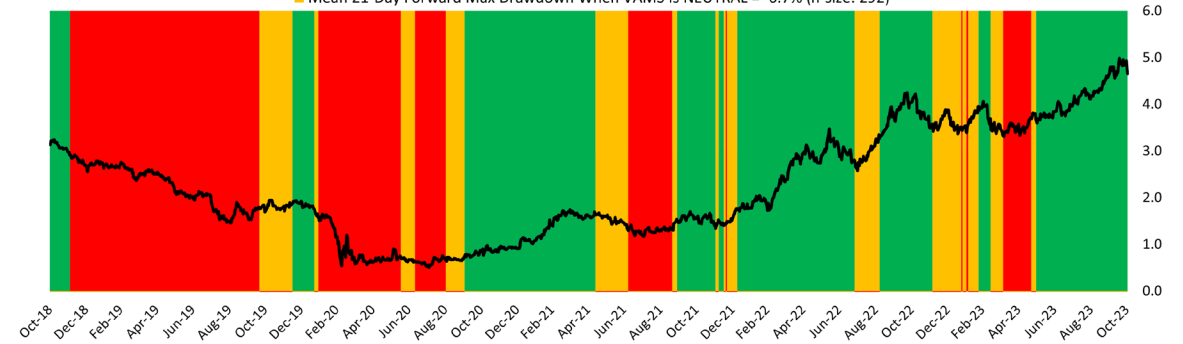
- US Generic Govt 2 Yr (USGG2YR) = 4.9414
- - - Lower Boundary of Probable Range = -0.02/-0.5% to 4.92; Mean 5-Day Forward % Change When Px < LBoPR = 1.7% (n-size: 39)
- - - Upper Boundary of Probable Range = 0.29/5.8% to 5.23; Mean 5-Day Forward % Change When Px > UBoPR = -0.4% (n-size: 39)



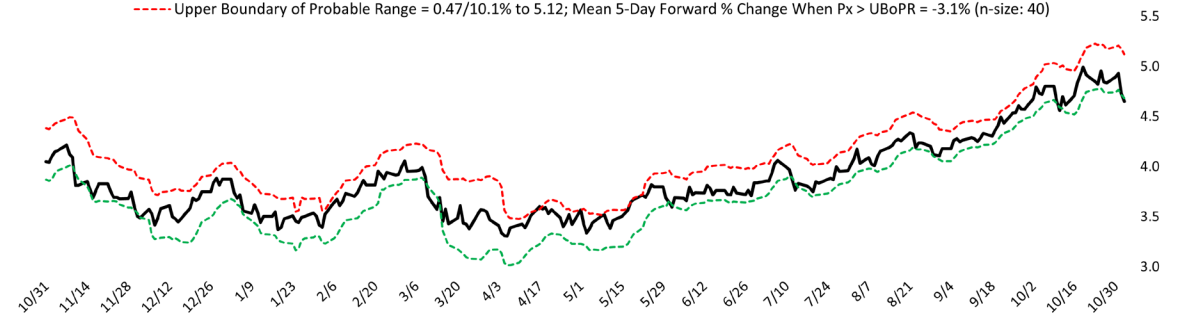
10yr Nominal Treasury Yield (USGG10YR) = 4.65; BULLISH



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -5.2% (n-size: 646)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -12% (n-size: 459)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -6.7% (n-size: 292)



- US Generic Govt 10 Yr (USGG10YR) = 4.6507
- - - Lower Boundary of Probable Range = 0.03/0.7% to 4.68; Mean 5-Day Forward % Change When Px < LBoPR = 1.9% (n-size: 44)
- - - Upper Boundary of Probable Range = 0.47/10.1% to 5.12; Mean 5-Day Forward % Change When Px > UBoPR = -3.1% (n-size: 40)



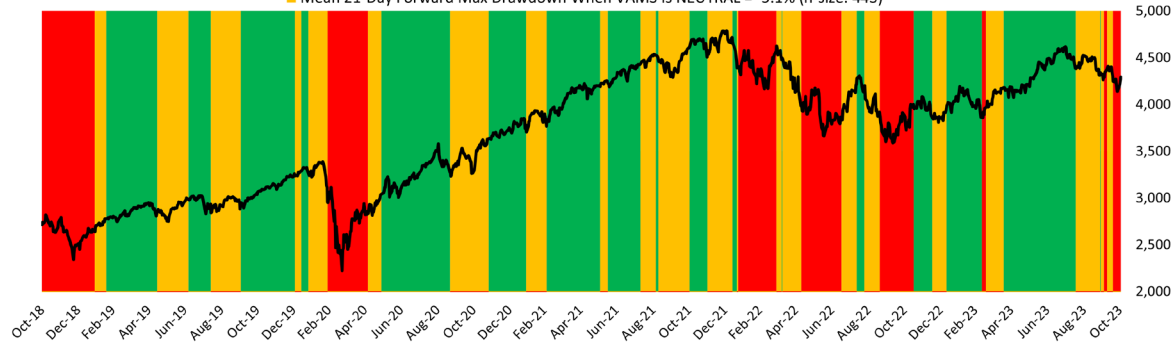
S&P 500

VIX

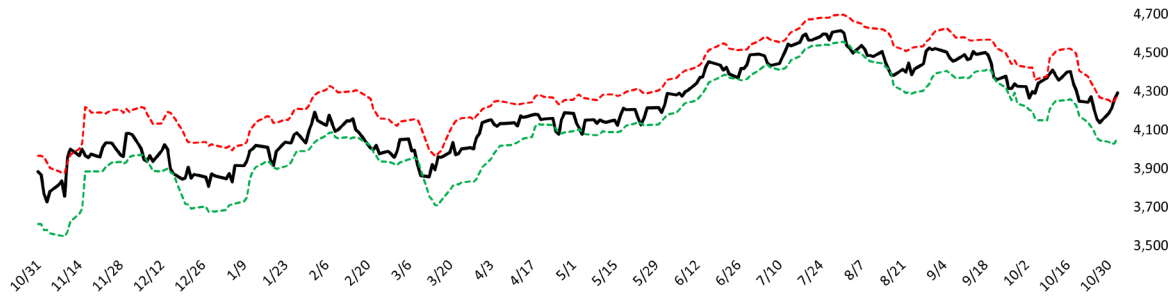
S&P 500 (ES1) = 4292; BEARISH



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -2.6% (n-size: 624)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -3.8% (n-size: 240)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -5.1% (n-size: 443)



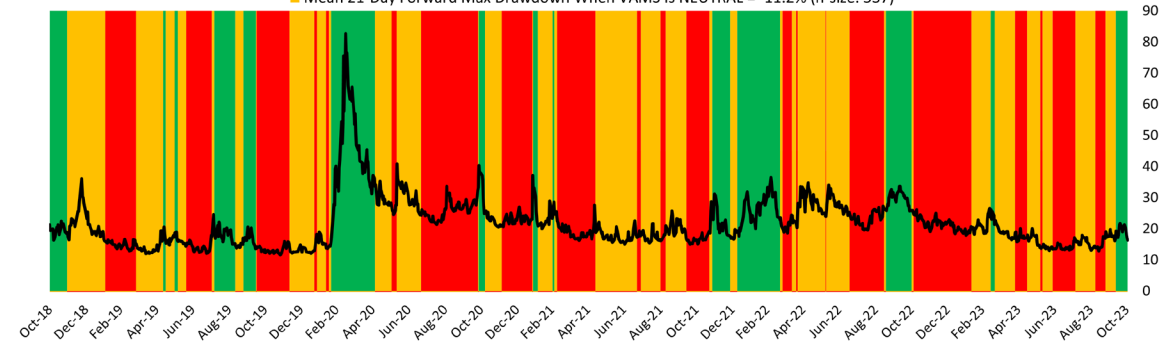
- Generic 1st 'ES' Future (ES1) = 4292.25
- - - Lower Boundary of Probable Range = -229.16/-5.3% to 4063.09; Mean 5-Day Forward % Change When Px < LBoPR = 0.3% (n-size: 49)
- - - Upper Boundary of Probable Range = -13.97/-0.3% to 4278.28; Mean 5-Day Forward % Change When Px > UBoPR = -1.4% (n-size: 10)



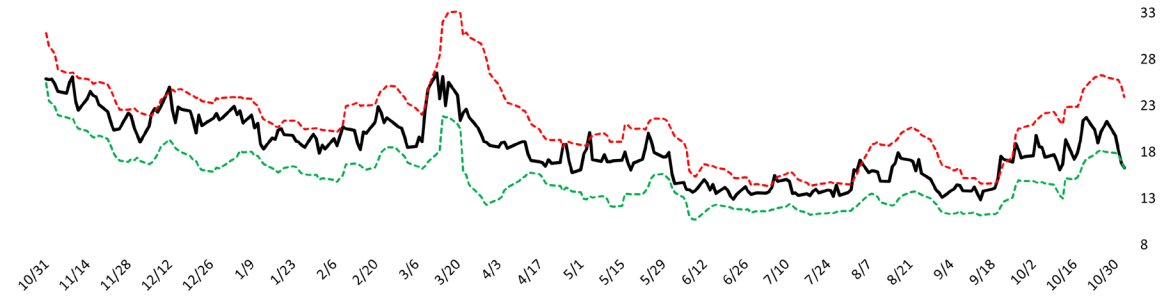
Cboe Volatility Index (VIX) = 16.27; BULLISH



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -17.7% (n-size: 250)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -8.1% (n-size: 536)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -11.2% (n-size: 537)



- Cboe Volatility Index (VIX) = 16.27
- - - Lower Boundary of Probable Range = 0/0% to 16.27; Mean 5-Day Forward % Change When Px < LBoPR = -0.9% (n-size: 17)
- - - Upper Boundary of Probable Range = 7.65/47% to 23.92; Mean 5-Day Forward % Change When Px > UBoPR = -1.2% (n-size: 58)



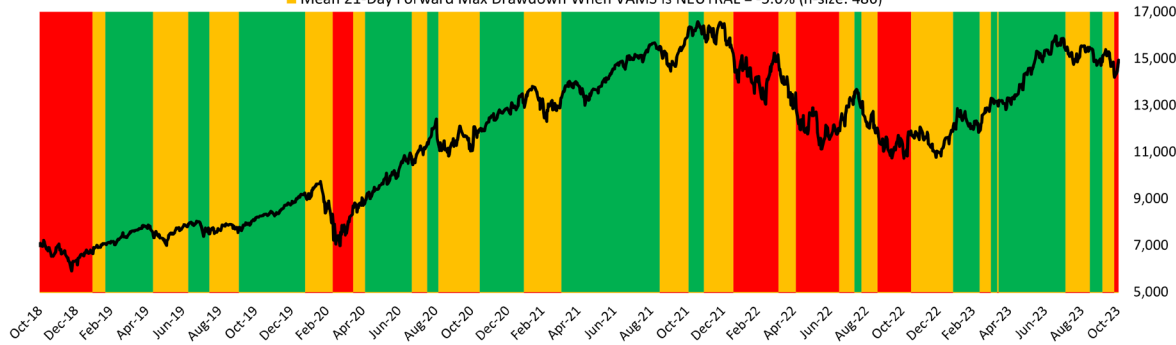
NASDAQ 100

Russell 2000

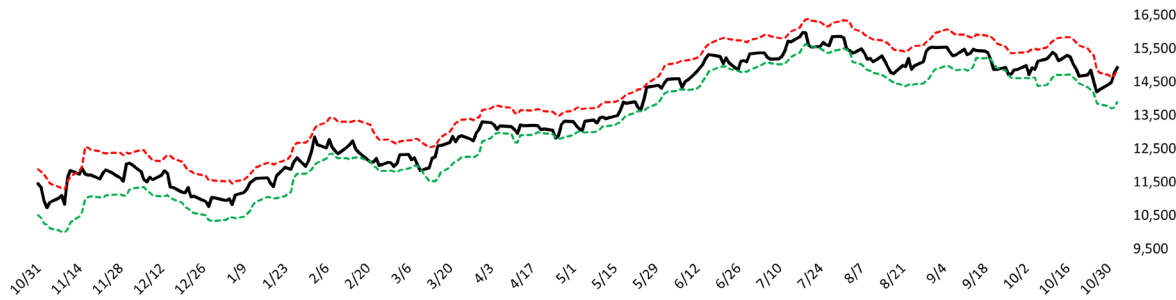
NASDAQ 100 (NQ1) = 14932; BEARISH



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -3% (n-size: 597)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -3.8% (n-size: 224)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -5.6% (n-size: 486)



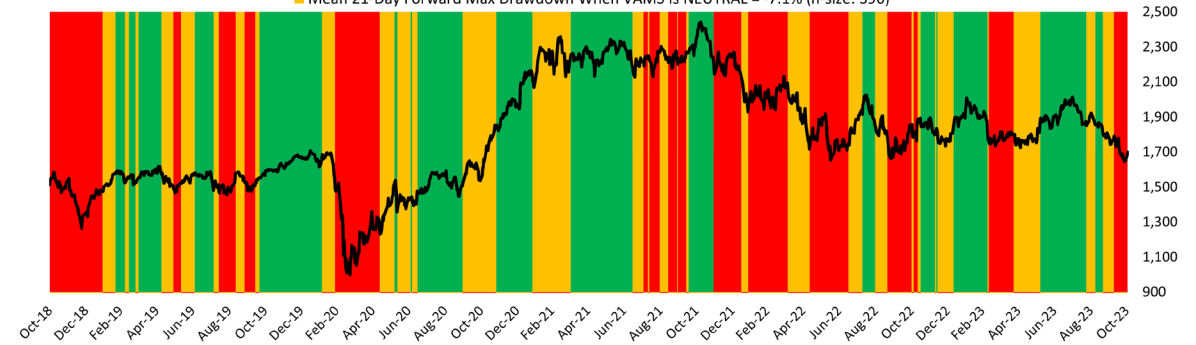
- Generic 1st 'NQ' Future (NQ1) = 14931
- - - Lower Boundary of Probable Range = -1048.05/-7% to 13882.95; Mean 5-Day Forward % Change When Px < LBoPR = 0.3% (n-size: 36)
- - - Upper Boundary of Probable Range = -86.6/-0.6% to 14844.4; Mean 5-Day Forward % Change When Px > UBoPR = -1% (n-size: 9)



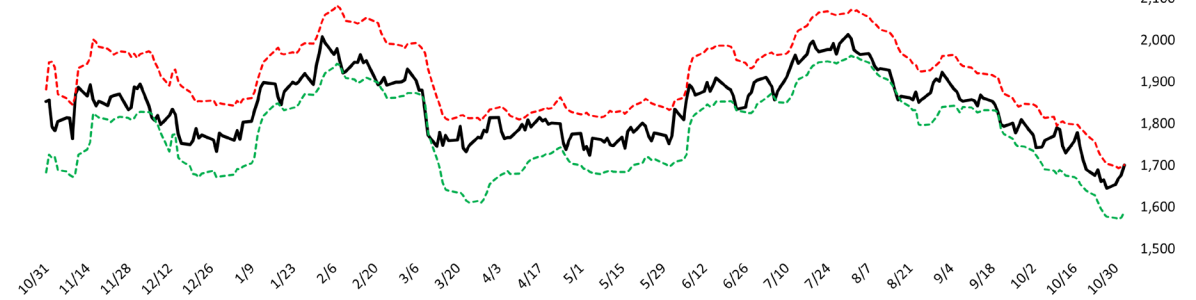
Russell 2000 (RTY1) = 1700; BEARISH



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -3.6% (n-size: 528)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -5.6% (n-size: 383)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -7.1% (n-size: 396)



- Generic 1st 'RTY' Future (RTY1) = 1700.3
- - - Lower Boundary of Probable Range = -111.87/-6.6% to 1588.43; Mean 5-Day Forward % Change When Px < LBoPR = 0.4% (n-size: 39)
- - - Upper Boundary of Probable Range = 0.59/0% to 1700.89; Mean 5-Day Forward % Change When Px > UBoPR = -1.2% (n-size: 18)

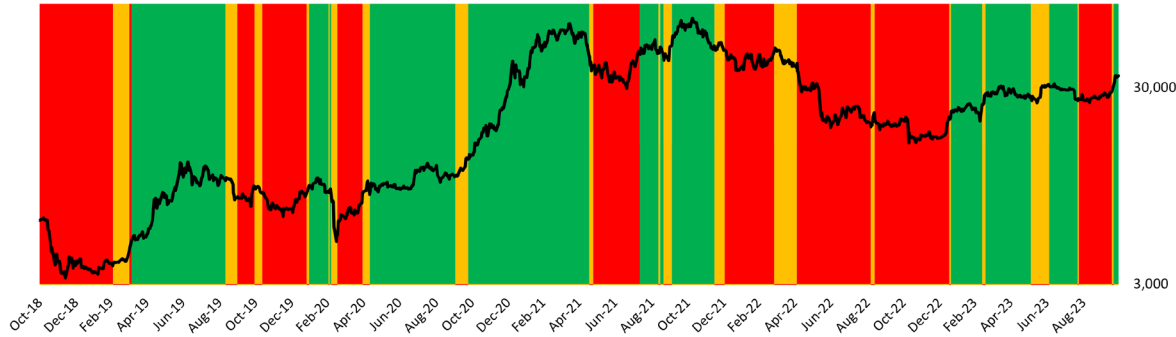


Bitcoin

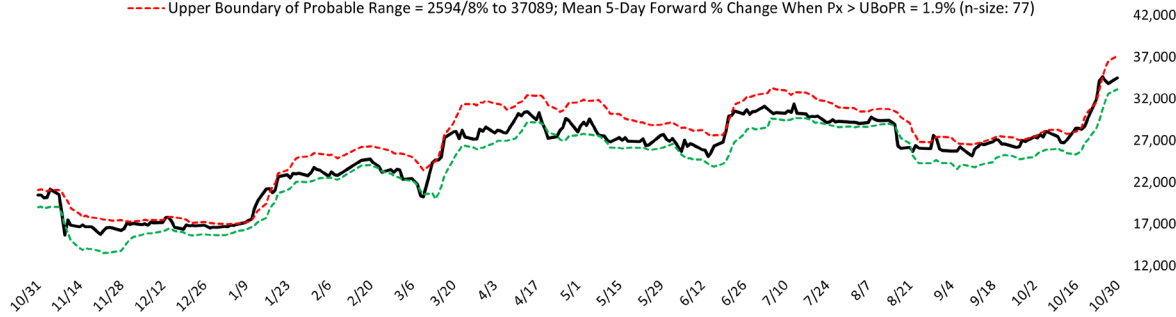
Bitcoin (BLX) = 34495; BULLISH



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -10.1% (n-size: 585)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -12.7% (n-size: 604)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -13.6% (n-size: 185)



- Bitcoin Liquid (BLX) = 34495.28
- - - Lower Boundary of Probable Range = -1379/-4% to 33116; Mean 5-Day Forward % Change When Px < LBoPR = 1.2% (n-size: 60)
- - - Upper Boundary of Probable Range = 2594/8% to 37089; Mean 5-Day Forward % Change When Px > UBoPR = 1.9% (n-size: 77)

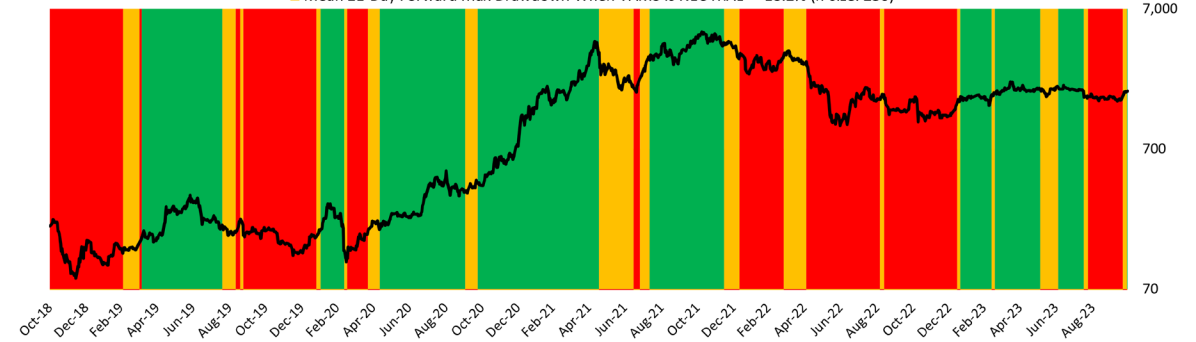


Ethereum

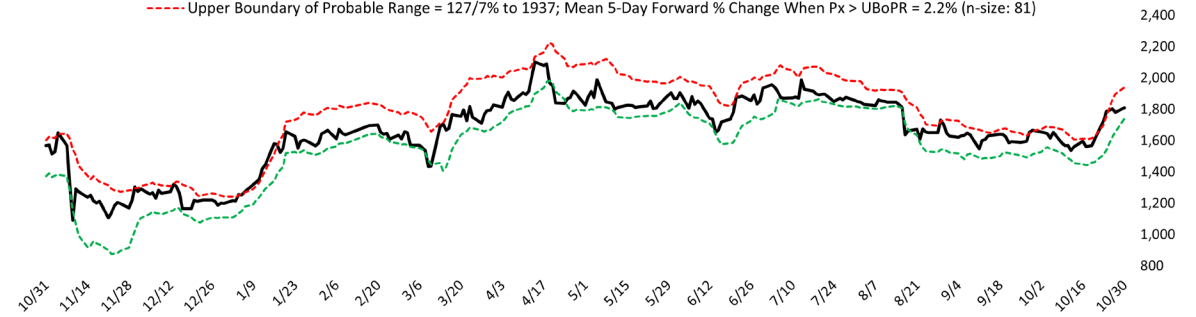
Ethereum (ELX) = 1810; BULLISH



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -12.7% (n-size: 582)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -16.8% (n-size: 562)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -18.2% (n-size: 230)



- Ethereum Liquid (ELX) = 1809.66
- - - Lower Boundary of Probable Range = -72/-4% to 1737; Mean 5-Day Forward % Change When Px < LBoPR = 0.1% (n-size: 49)
- - - Upper Boundary of Probable Range = 127/7% to 1937; Mean 5-Day Forward % Change When Px > UBoPR = 2.2% (n-size: 81)

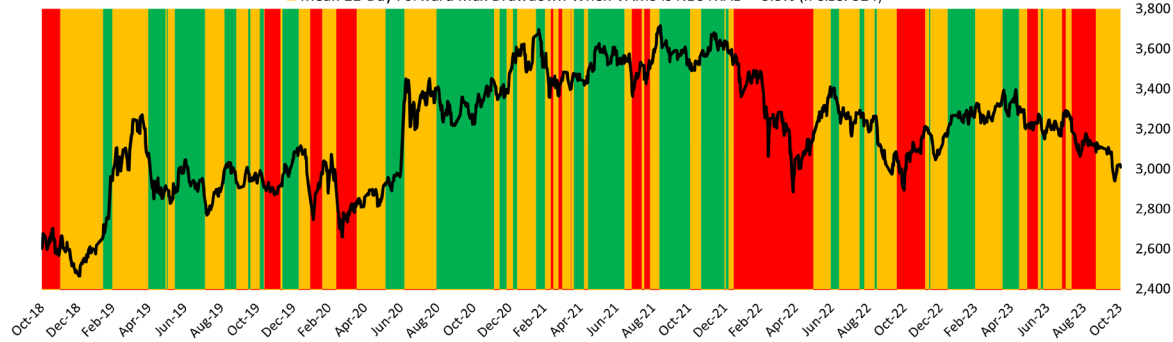


Shanghai Composite

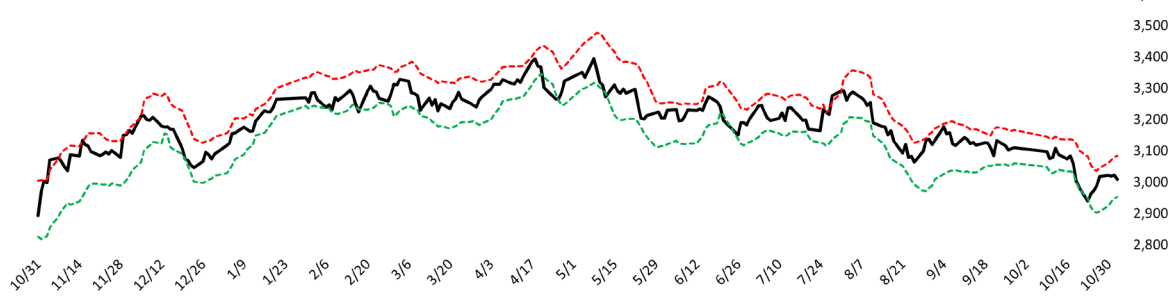


Shanghai Composite (SHCOMP) = 3009; NEUTRAL

- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -2.3% (n-size: 375)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -2.7% (n-size: 311)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -3.3% (n-size: 524)



- SHANGHAI SE COMPOSITE (SHCOMP) = 3009.406
- - - Lower Boundary of Probable Range = -57.23/-1.9% to 2952.17; Mean 5-Day Forward % Change When Px < LBoPR = 0.2% (n-size: 44)
- - - Upper Boundary of Probable Range = 74.66/2.5% to 3084.06; Mean 5-Day Forward % Change When Px > UBoPR = 0.5% (n-size: 22)

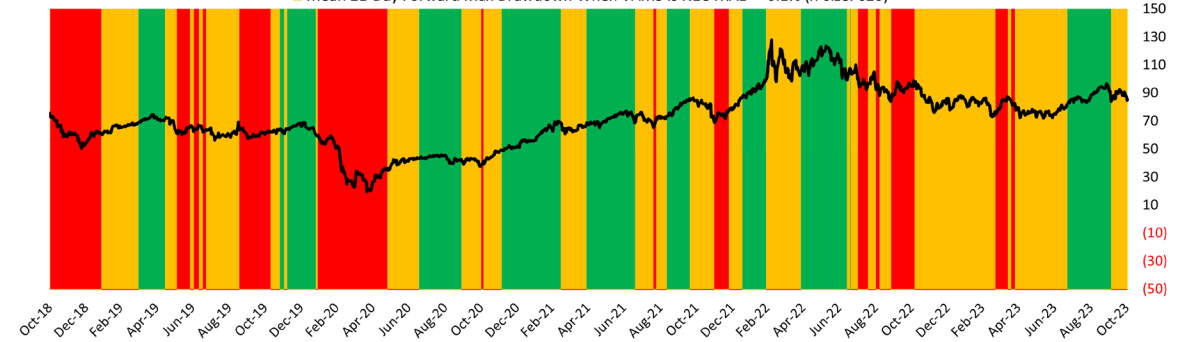


Brent Crude Oil

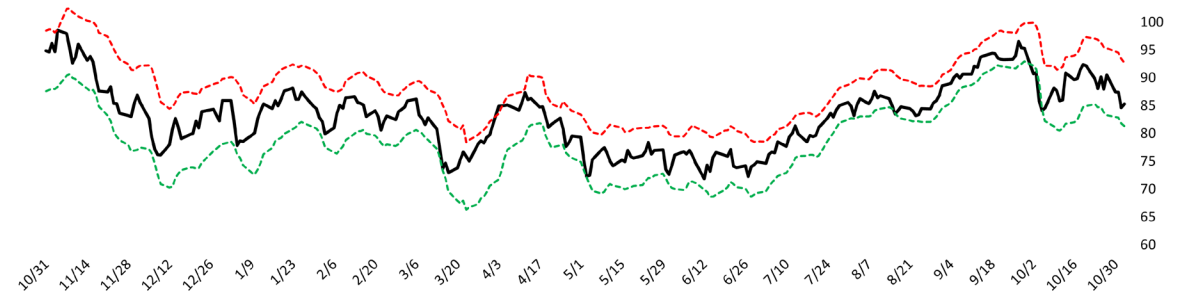


Brent Crude Oil Spot \$/bbl (CO1) = 85; NEUTRAL

- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -5.2% (n-size: 457)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -12.9% (n-size: 294)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -6.1% (n-size: 620)



- Generic 1st 'CO' Future (CO1) = 85.31
- - - Lower Boundary of Probable Range = -3.94/-5% to 81.37; Mean 5-Day Forward % Change When Px < LBoPR = 0.2% (n-size: 32)
- - - Upper Boundary of Probable Range = 7.44/9% to 92.75; Mean 5-Day Forward % Change When Px > UBoPR = 0.9% (n-size: 22)



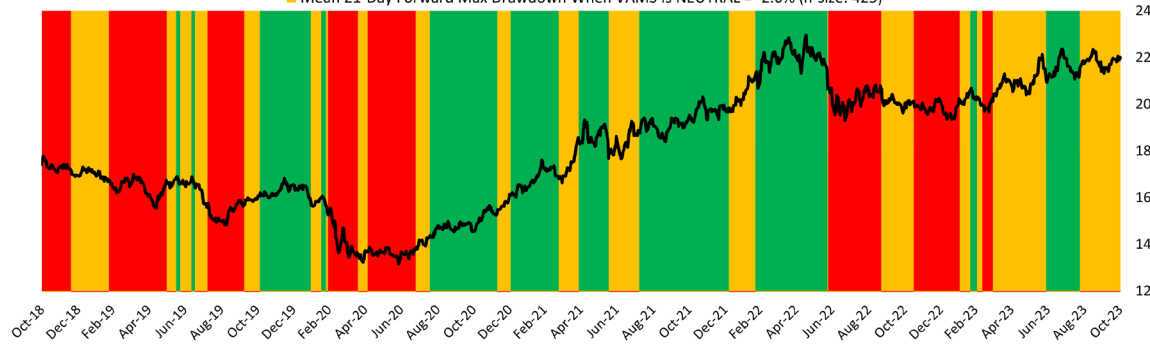
Agricultural Commodities

Industrial Commodities

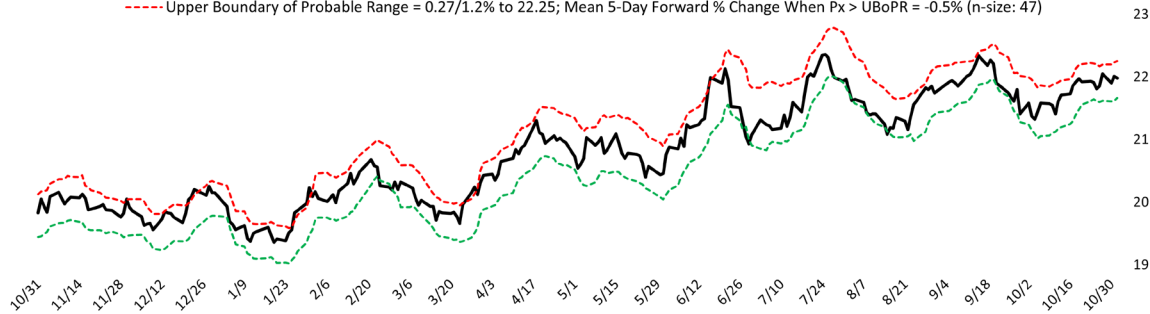
INVESCO DB AGRICULTURE FUND (DBA) = 21.98; NEUTRAL



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -3.1% (n-size: 471)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -2.2% (n-size: 404)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -2.6% (n-size: 425)



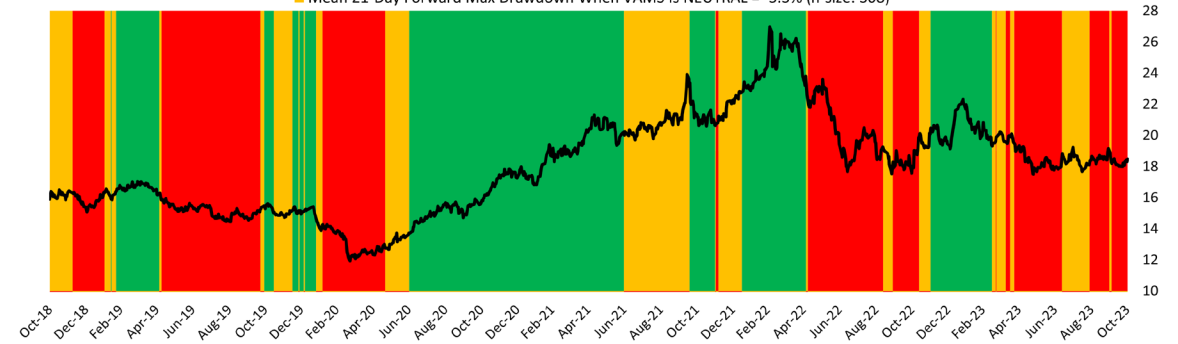
- INVESCO DB AGRICULTURE FUND (DBA) = 21.98
- - - Lower Boundary of Probable Range = -0.32/-1.4% to 21.66; Mean 5-Day Forward % Change When Px < LBoPR = 0.3% (n-size: 58)
- - - Upper Boundary of Probable Range = 0.27/1.2% to 22.25; Mean 5-Day Forward % Change When Px > UBoPR = -0.5% (n-size: 47)



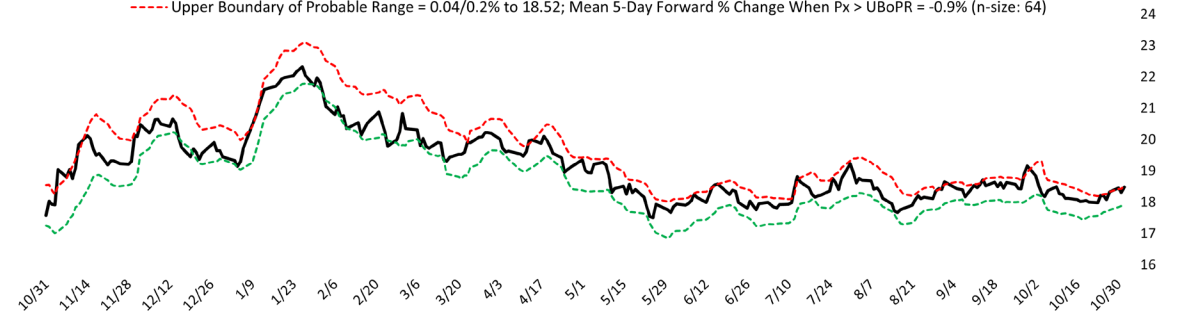
INVESCO DB BASE METALS FUND (DBB) = 18.48; BEARISH



- Mean 21-Day Forward Max Drawdown When VAMS Is BULLISH = -4.3% (n-size: 502)
- Mean 21-Day Forward Max Drawdown When VAMS Is BEARISH = -4.5% (n-size: 490)
- Mean 21-Day Forward Max Drawdown When VAMS Is NEUTRAL = -3.3% (n-size: 308)



- INVESCO DB BASE METALS FUND (DBB) = 18.48
- - - Lower Boundary of Probable Range = -0.62/-3.4% to 17.86; Mean 5-Day Forward % Change When Px < LBoPR = -0.9% (n-size: 61)
- - - Upper Boundary of Probable Range = 0.04/0.2% to 18.52; Mean 5-Day Forward % Change When Px > UBoPR = -0.9% (n-size: 64)



**Thanks for reviewing.
Have a great day!**

42 Macro Product Walkthroughs:

<https://42macro.com/walkthrough>

42 Macro Playbook:

<https://42macro.com/the-playbook/>