



42

Macro



Darius Dale Macro Voices Interview  
Thursday, July 13, 2023

Updated 7/10/23; originally prepared 7/7/23 for [@42Macro](#) subscribers

# Disclaimer

Please do not redistribute this email, any information or communications (our “Content”) provided by 42 Macro, LLC (“42 Macro”) to any other person, including forwarding, posting, framing or publishing any of our content on any third-party website or social media platform without express written permission of 42 Macro.

42 Macro does not provide, and no portion of our Content purports to be, individualized or specific investment advice and 42 Macro does not provide investment advice to individuals. All information provided by 42 Macro is general in nature and is made without regard to individual levels of sophistication or investment experience, investment preferences, objectives or risk parameters and without regard to the suitability of the Content for individuals or entities who may access it. Must be an accredited or registered investor to participate in the 42 Macro Pro-to-Pro service.

No information provided by 42 Macro, should be construed as an offer to sell, or a solicitation of an offer to buy any security or investment vehicle, nor should it be construed as tailored or specific to you, or any reader or consumer thereof. You understand and agree that our content does not constitute specific recommendations of any particular investment, security, portfolio, transaction or strategy, nor does it recommend any specific course of action is suitable for any specific person or entity or group of persons or entities. At any point in time, the employees of 42 Macro may own a portion of or all the ETF securities discussed in 42 Macro research Content.

42 Macro research Content is based upon information from sources believed to be reliable. 42 Macro is not responsible for errors, inaccuracies or omissions of information; nor is it responsible for the accuracy or authenticity of the information upon which it relies.



# Table Of Contents

- Key Takeaways: 4
- Part I: Blocking and Tackling: 5-40
  - [Macro Weather Model](#) Summary: 6-19
  - US [GRID](#) Outlook: 20-22
  - Global [GRID](#) Outlook: 23
  - Why [GRID](#) Works: 24
  - K.I.[S.S.](#) Portfolio Construction Process: 25-28
- Part II: Global [Liquidity Cycle](#) Update: 29-45
- Part III: Macro Risk Management Scenarios: 46-105
  - [Modal Outcome](#): 46-80
  - [Left Tail Risk](#): 81-98
  - [Right Tail Risk](#): 99-105






# Key Takeaways: Monday, July 10, 2023

- **MEDIUM TERM (3-12mos):** We remain staunchly committed to our “**Patience & Popcorn**” theme. Patience for exhausted bears antsy for the **Phase 2 Credit Cycle** downturn to begin. Popcorn for underinvested bulls antsy for a linear recovery in the Global **Liquidity Cycle**. We believe the former catalyst is most likely to commence in late-2023/early-2024. We believe the latter catalyst is most likely to commence in the spring of next year.
  - **MODAL OUTCOME (High Probability):** The positive aspects of our “**resilient US economy = resilient US inflation**” theme continues to support **REFLATION** as the Dominant Market Regime as growth continues to surprise consensus expectations to the upside.
  - **LEFT TAIL RISK (Middling Probability):** The negative aspects of our “**resilient US economy = resilient US inflation**” theme triggers a phase transition in the Dominant Market Regime from **REFLATION** to **INFLATION** once inflation begins to surprise consensus expectations to the upside again. The earliest we see that process commencing is August.
  - **RIGHT TAIL RISK (Low Probability):** The current nonlinear recovery in the Global **Liquidity Cycle** gives way to a smooth, unimpeded rise in global liquidity that perpetuates a phase transition in the Dominant Market Regime to **GOLDILOCKS**. That process would be augmented by a continued unwind of consensus long-USD POSITIONING.
- **RISK MANAGEMENT:**
  - **SELLS:** n/a
  - **BUYS:** n/a
  - **OVERBOUGHT:** VIX
  - **OVERSOLD:** S&P 500, Russell 2000
- **EDUCATIONAL RESOURCES:**
  - <https://42macro.com/walkthrough>
  - <https://42macro.com/the-playbook/>
  - <https://bit.ly/3DcrL21>

# Blocking And Tackling



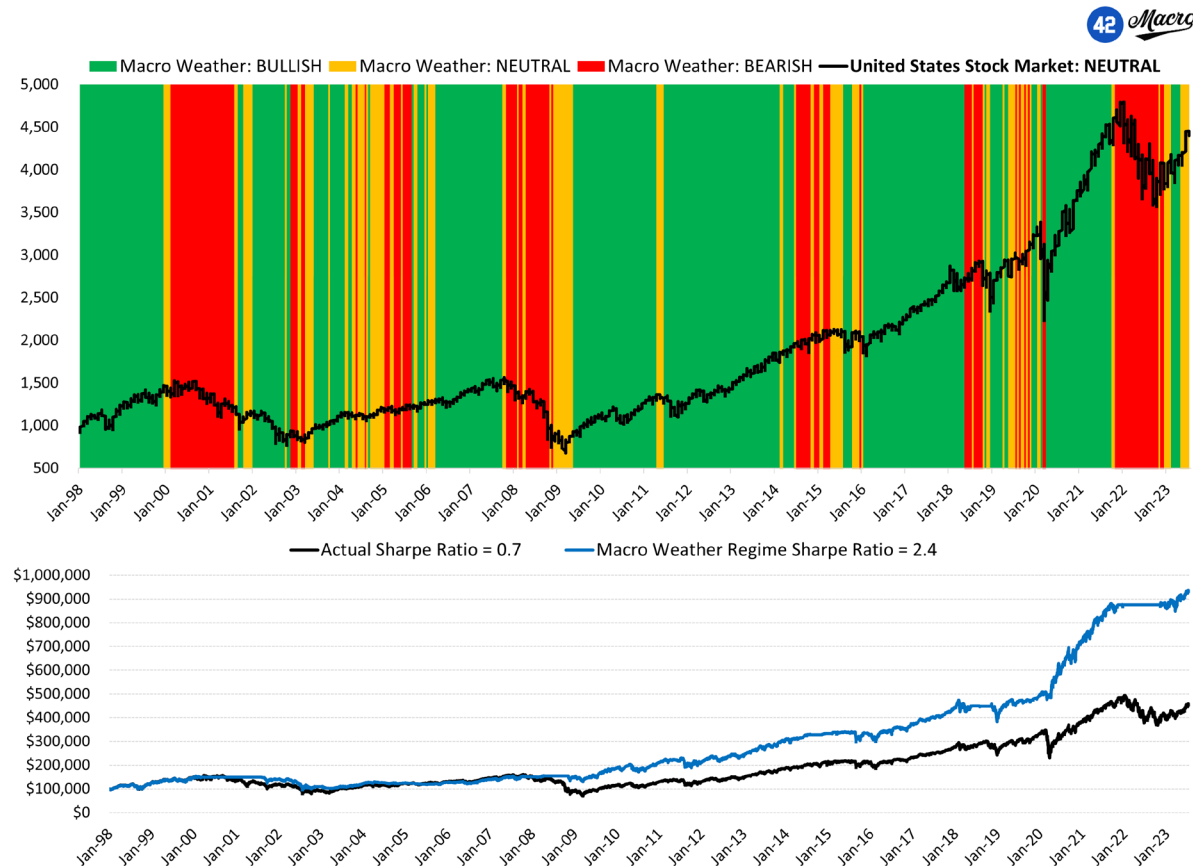
# We Use The @42Macro Weather Model In Conjunction With Our GRID Framework To Help Investors Minimize Downside Capture And Maximize Upside Capture In Asset Markets

Ten Principal Components of Macro: Real Economy Cycles					United States 7/10/2023	Ten Principal Components of Macro: Financial Economy Cycles						
Growth		Previous Value	Latest Value	Previous Signal	Latest Signal	Stock Market  3-Month Outlook	Latest Signal	Previous Signal	Latest Value	Previous Value	Monetary Policy	
OECD Composite Leading Indicator		98.8	98.9	⬇️	⬇️		⬇️	⬇️	\$5,963	\$5,931	@42Macro Net Liquidity \$bn	
Bloomberg Consensus NTM Real GDP Δ		-160bps	-30bps	⬇️	⬇️		⬇️	⬇️	\$131,813	\$131,925	@42Macro Global Liquidity Proxy \$bn	
Inflation		Previous Value	Latest Value	Previous Signal	Latest Signal	Bond Market  3-Month Outlook	Latest Signal	Previous Signal	Latest Value	Previous Value	Liquidity	
Headline CPI YoY		4.9%	4.0%	⬇️	⬇️		⬇️	⬇️	-4.0%	-0.9%	Domestic Broad Money Supply YoY	
Bloomberg Consensus NTM Headline CPI Δ		-130bps	-95bps	⬇️	⬇️		⬇️	⬇️	3.2%	5.1%	Global PPP-Weighted Broad Money Supply YoY	
Employment		Previous Value	Latest Value	Previous Signal	Latest Signal	US Dollar  3-Month Outlook	Latest Signal	Previous Signal	Latest Value	Previous Value	Interest Rates	
Unemployment Rate		3.7%	3.6%	⬇️	⬇️		⬆️	⬆️	5.25%	5.25%	Benchmark Policy Rate	
Bloomberg Consensus NTM Unemployment Rate Δ		95bps	100bps	⬆️	⬆️		⬇️	⬇️	-32bps	-30bps	2yr Nominal Yield Spread vs. Benchmark Policy Rate	
Corporate Profits		Previous Value	Latest Value	Previous Signal	Latest Signal	Commodities  3-Month Outlook	Latest Signal	Previous Signal	Latest Value	Previous Value	Fear	
Bloomberg Consensus NTM Sales Growth Rate		0.1%	0.1%	⬇️	⬇️		⚠️	⚠️	13%	14%	Aggregated US Dollar POSITIONING	
Bloomberg Consensus NTM EPS Growth Rate		-2.6%	-2.6%	⬇️	⬇️		ⓧ	ⓧ	-14%	-13%	Aggregated US Rates POSITIONING	
Fiscal Policy		Previous Value	Latest Value	Previous Signal	Latest Signal	Bitcoin  3-Month Outlook	Latest Signal	Previous Signal	Latest Value	Previous Value	Greed	
Sovereign Fiscal Balance/Nominal GDP		-7.3%	-8.0%	⬇️	⬇️		ⓧ	ⓧ	3%	3%	Aggregated Commodities POSITIONING	
Real Effective Exchange Rate		105.9	106.6	⬇️	⬆️		⚠️	⚠️	-2%	0%	Aggregated US Equities POSITIONING	
GRID Regime: DEFLATION Conviction: HIGH												

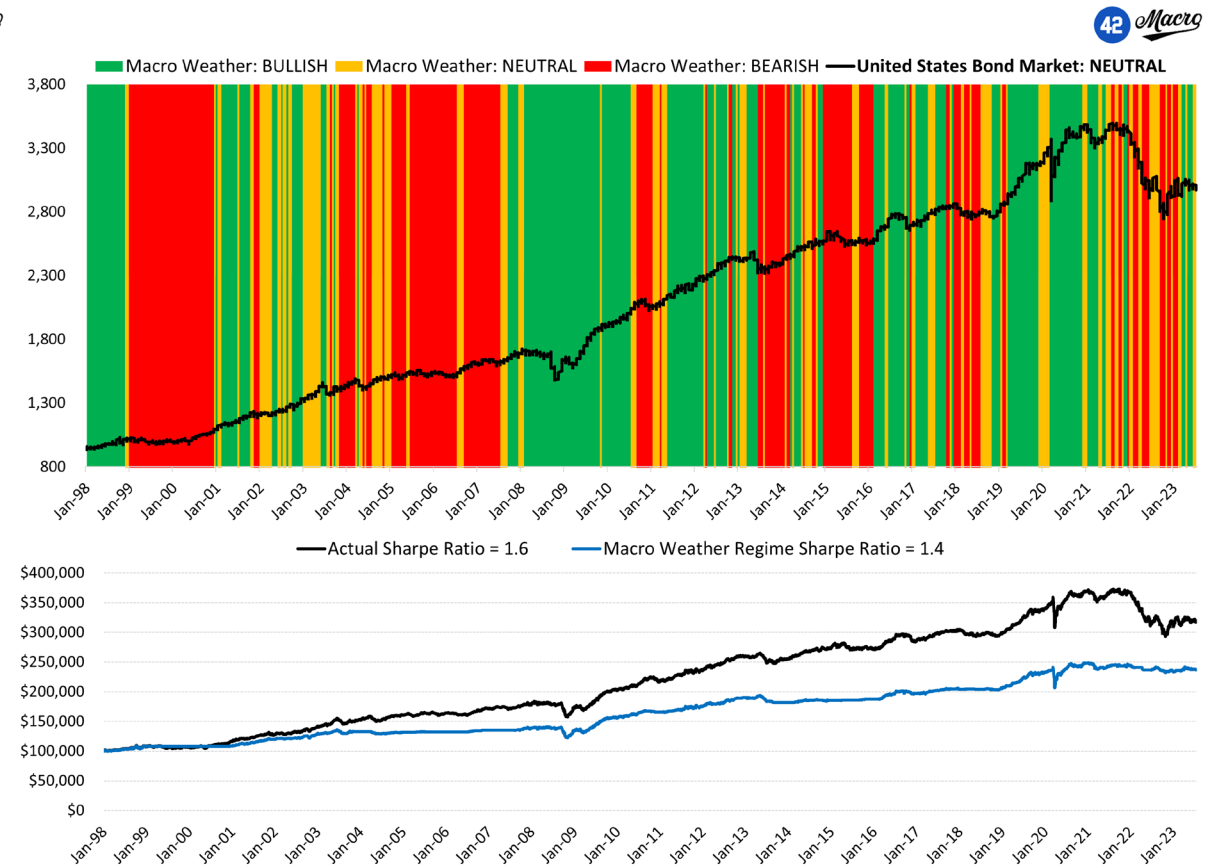
© 42 Macro LLC. Data Source: Bloomberg. How the model works: Each of the 20 features representing the Ten Principal Components of Macro contributes independently to the independent Composite Signals for each asset class. Each Composite Signal is designed to predict whether observed macroeconomic conditions – 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

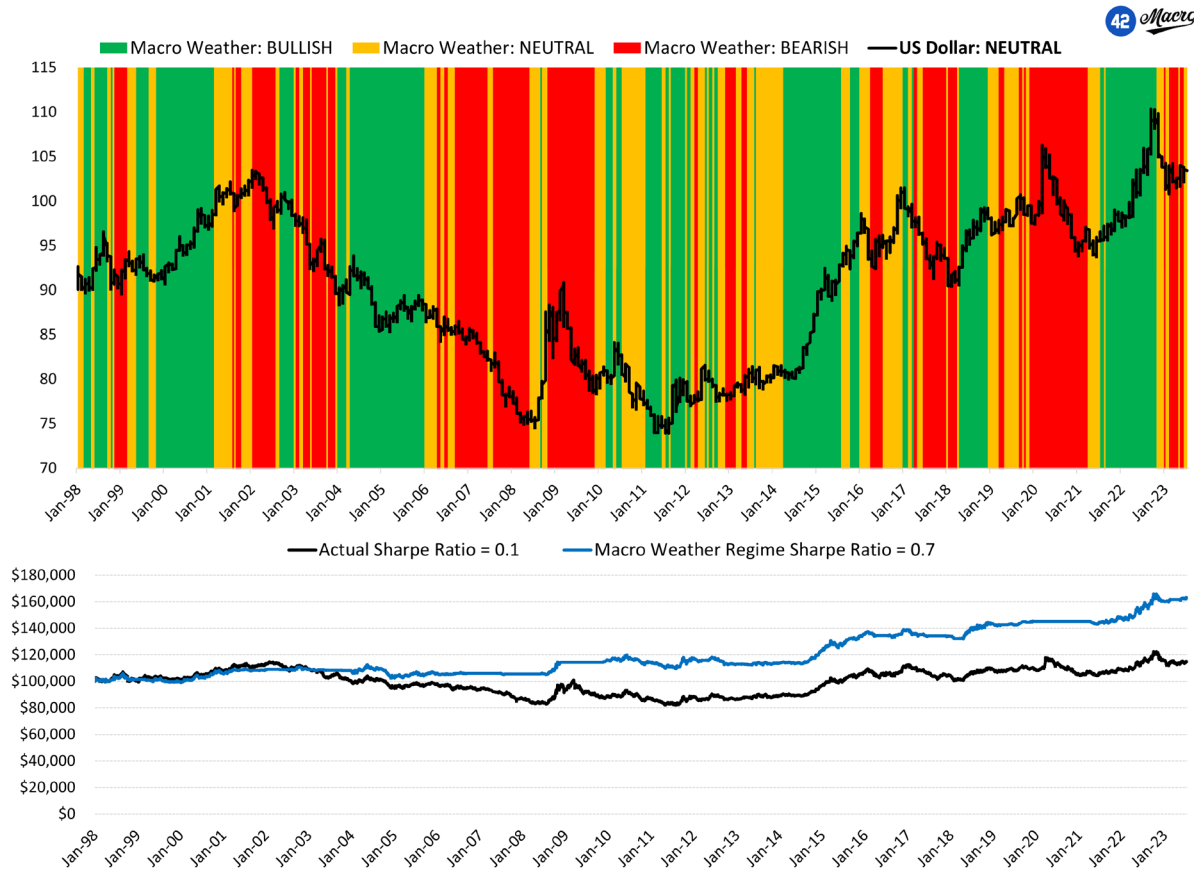


# Weather Model Composite Signal: Bond Market

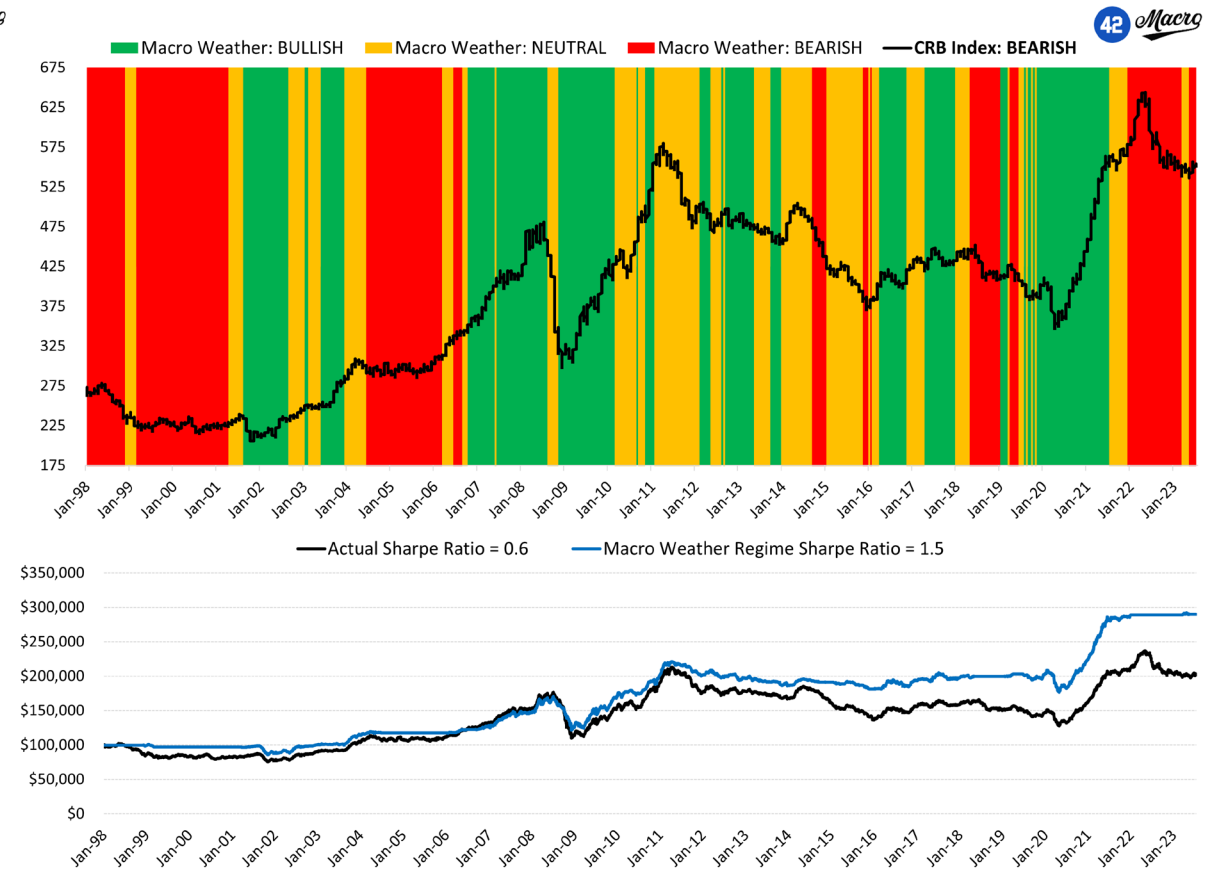


© 42 Macro LLC. Data Source: Bloomberg. Hypothetical growth of a \$100,000 investment made on 1/1/98. The backtest goes long the exposure at the close in the subsequent trading day following a fresh bullish signal, cuts the position in half at the close in the subsequent trading day following a fresh 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

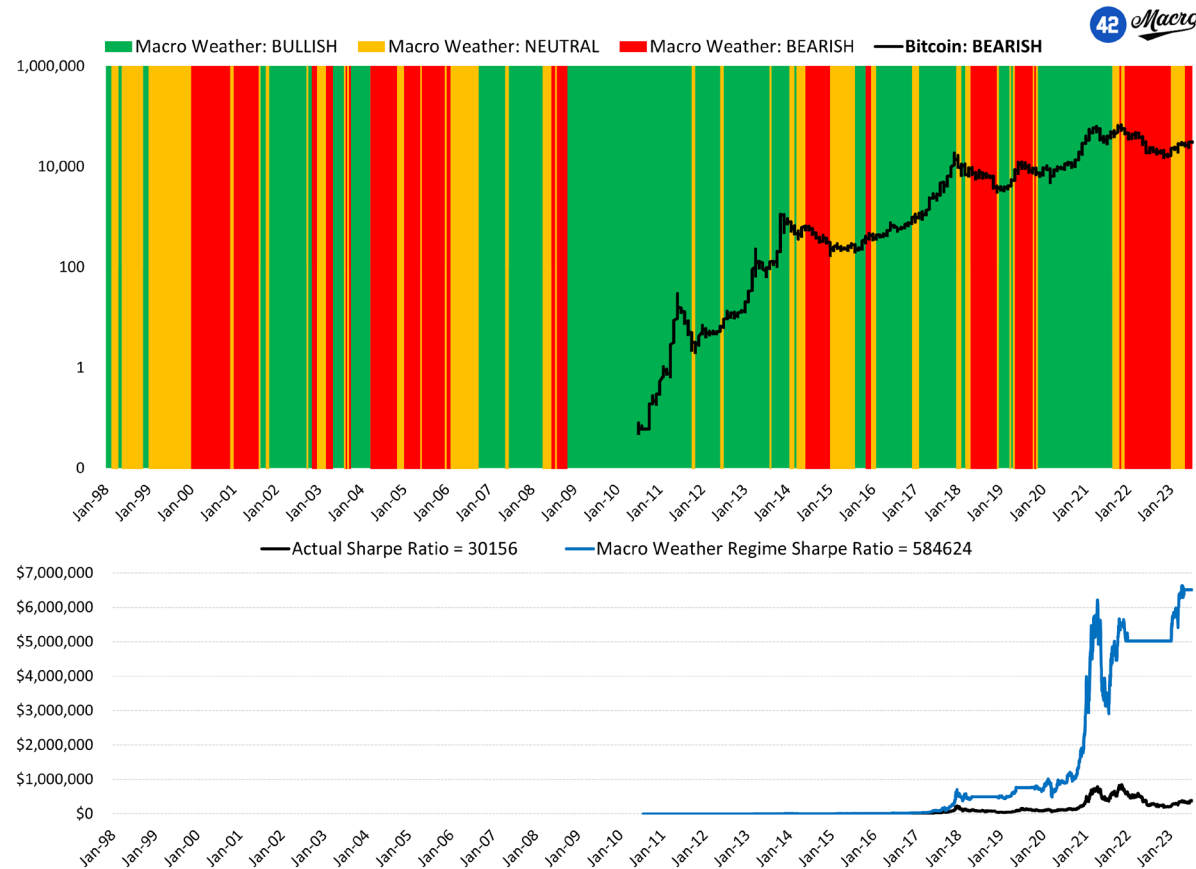


# Weather Model Composite Signal: Commodities

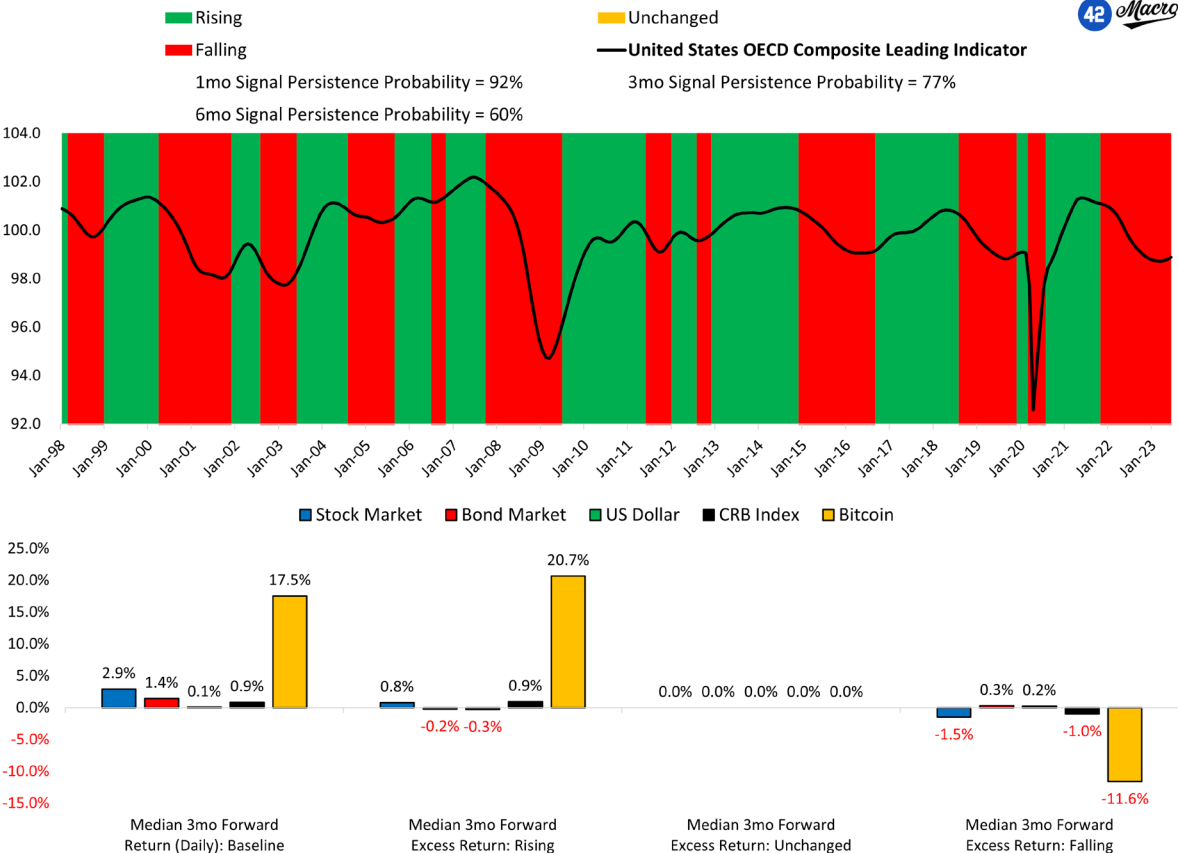


© 42 Macro LLC. Data Source: Bloomberg. Hypothetical growth of a \$100,000 investment made on 1/1/98. The backtest goes long the exposure at the close in the subsequent trading day following a fresh bullish signal, cuts the position in half at the close in the subsequent trading day following a fresh 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.

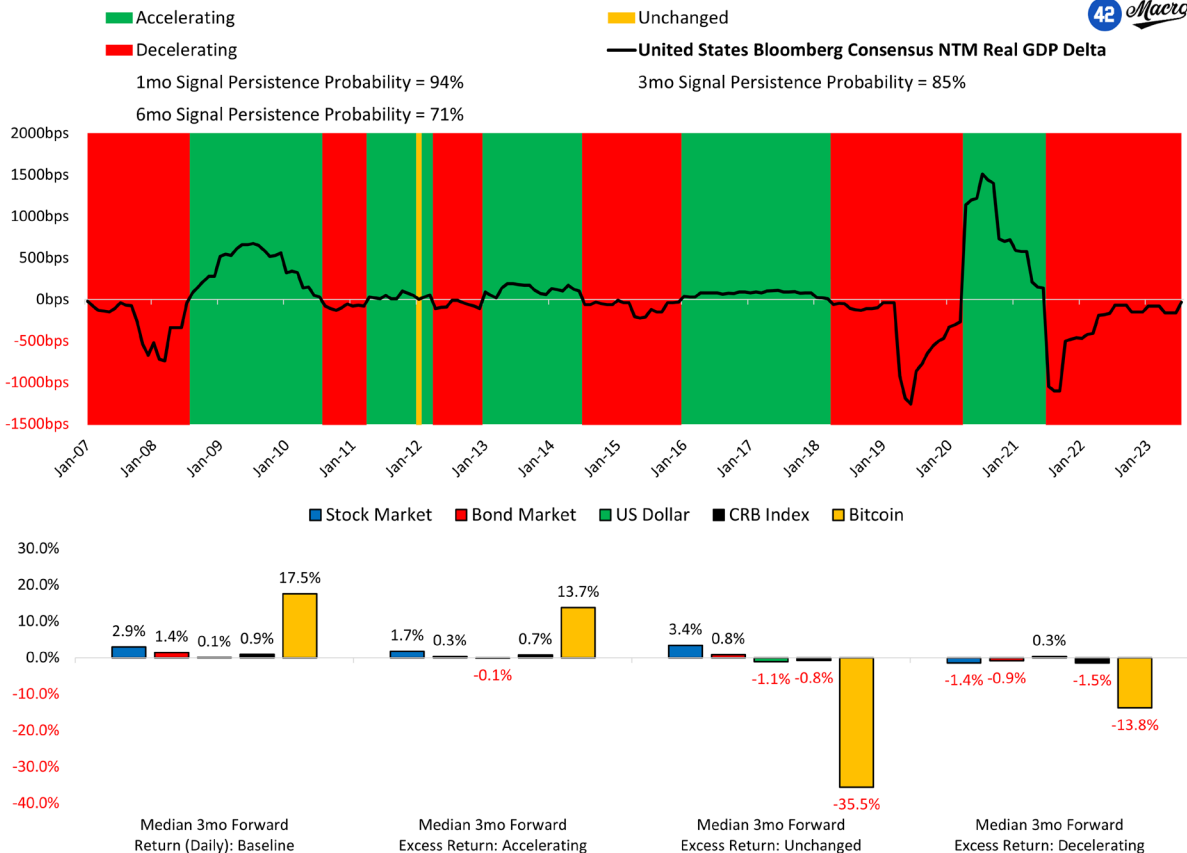
# Weather Model Composite Signal: Bitcoin



# Growth: OECD Composite Leading Indicator



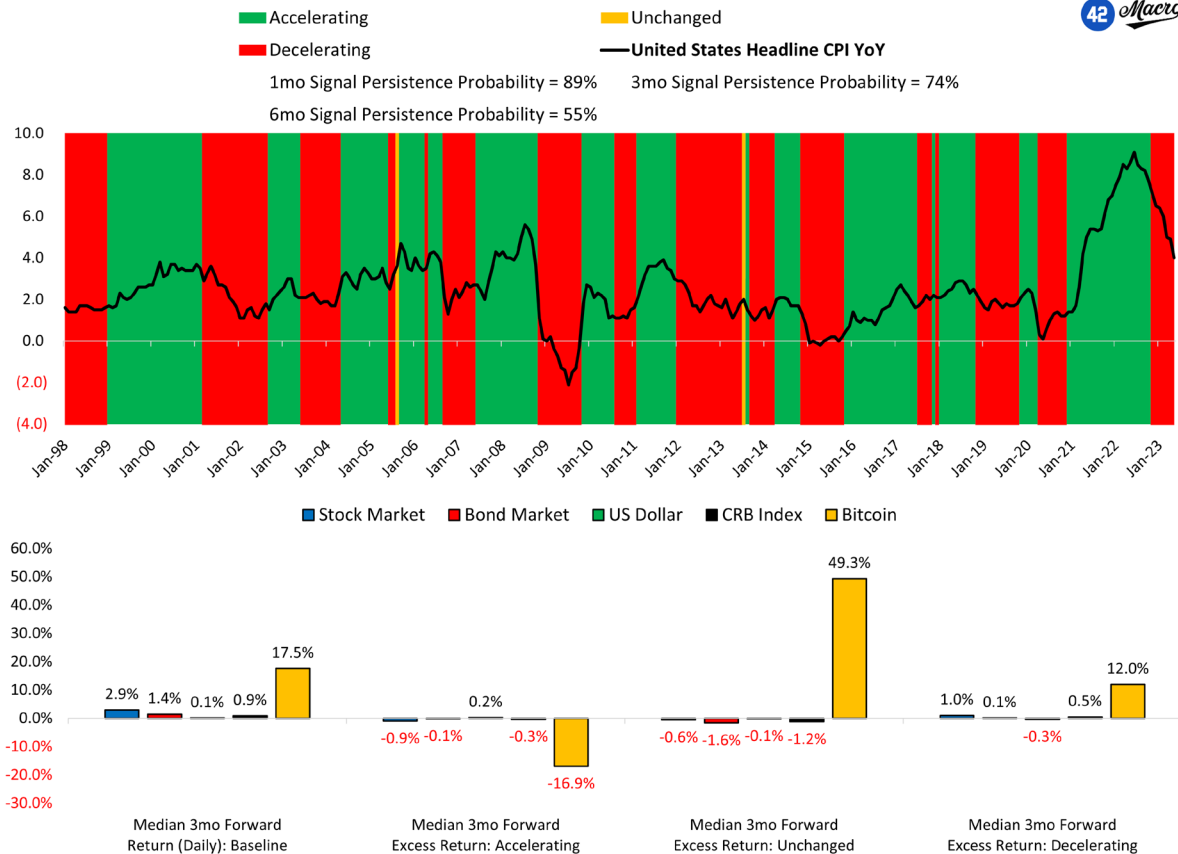
# Growth: Bloomberg Consensus NTM Real GDP Δ



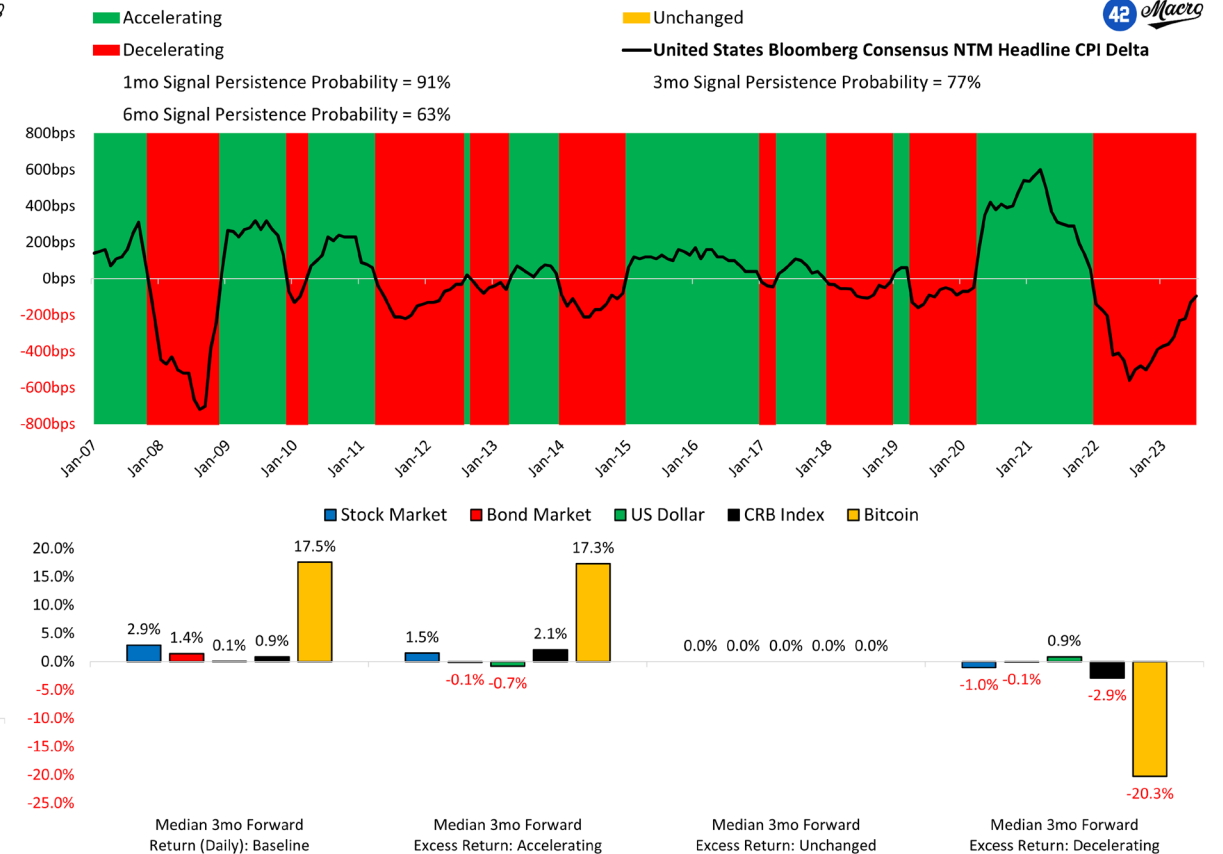
© 42 Macro LLC. Data Source: Bloomberg. The @42Macro Weather Model works by segmenting each feature into distinct regimes and conducting rolling out-of-sample backtests on indiscrete periods to quantify dispersion across regimes, for each liquid asset class. The dispersion identified by these independent out-of-sample backtests contribute independently to each independent Composite Signal.



## Inflation: Headline CPI YoY

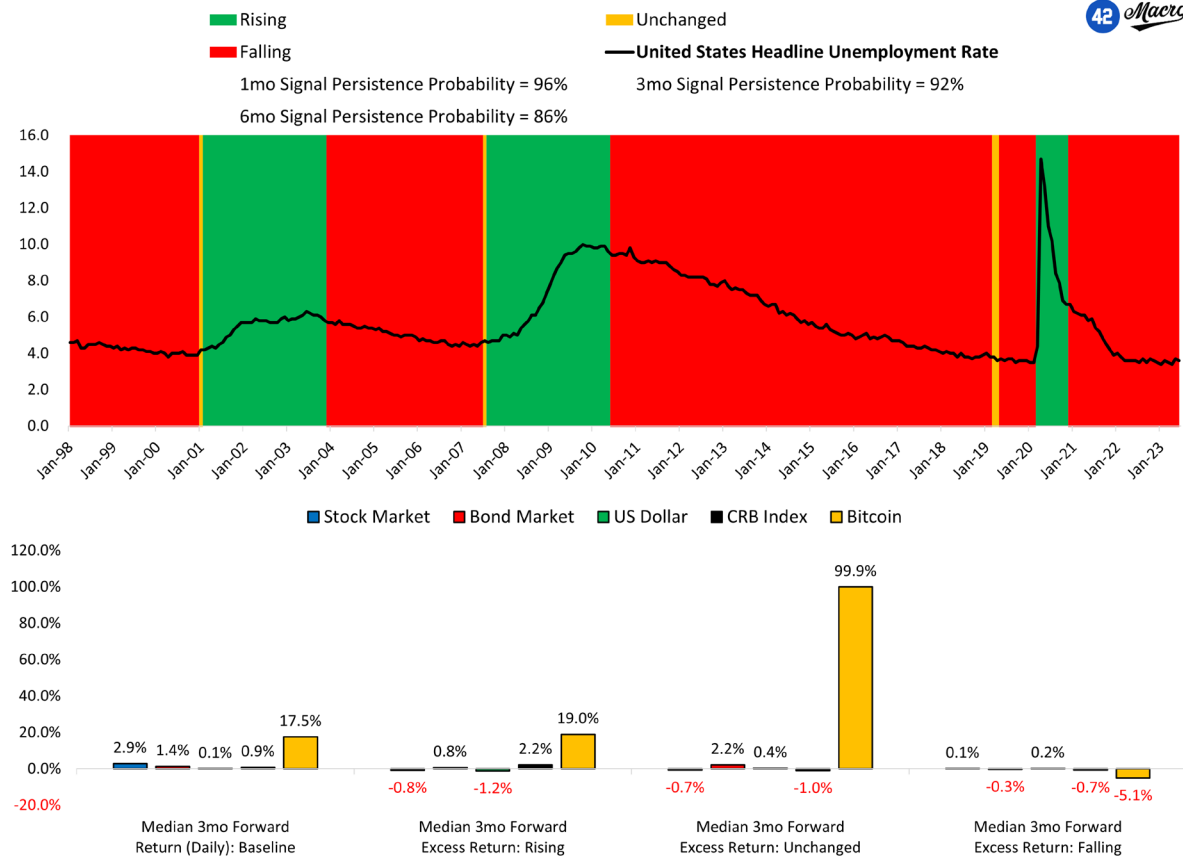


## Inflation: Bloomberg Consensus NTM Headline CPI Δ

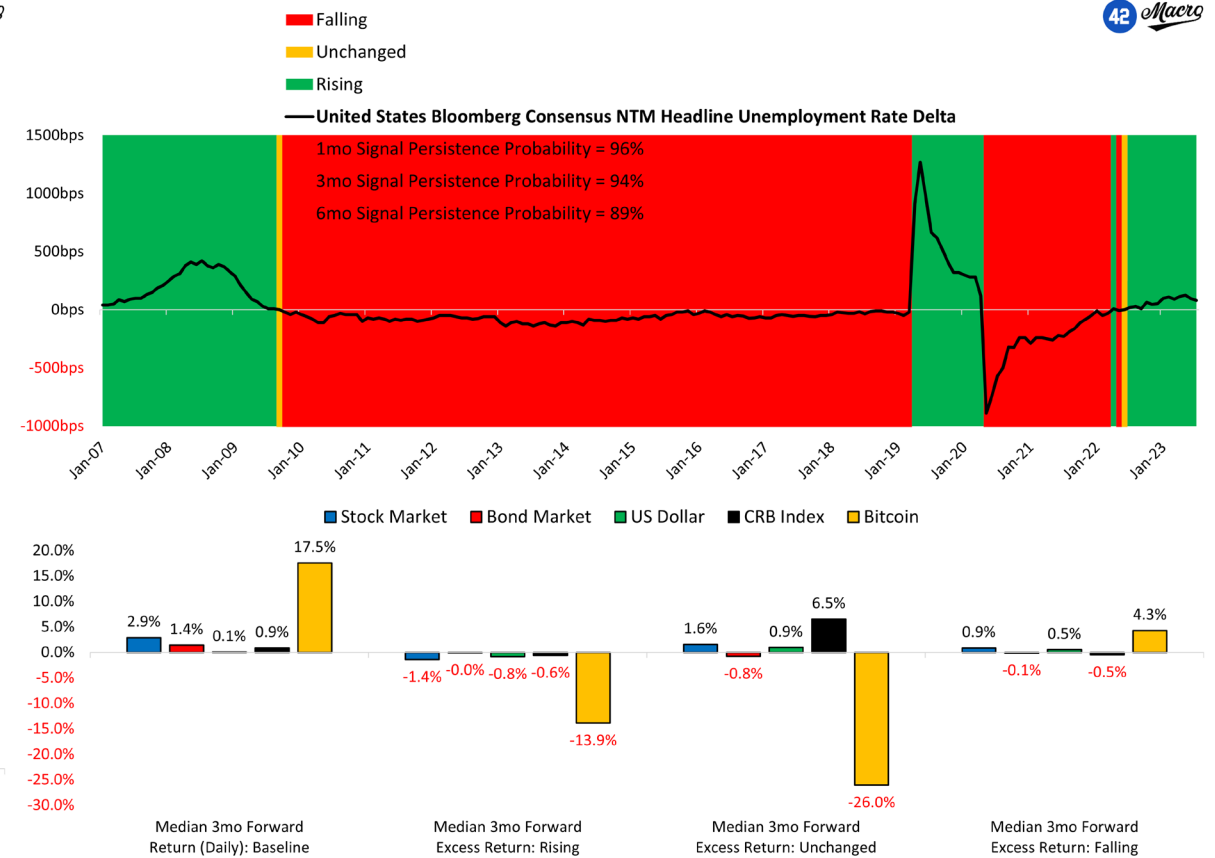


© 42 Macro LLC. Data Source: Bloomberg. The [@42Macro Weather Model](#) works by segmenting each feature into distinct regimes and conducting rolling out-of-sample backtests on indiscrete periods to quantify dispersion across regimes, for each liquid asset class. The dispersion identified by these independent out-of-sample backtests contribute independently to each independent Composite Signal.

## Employment: Unemployment Rate

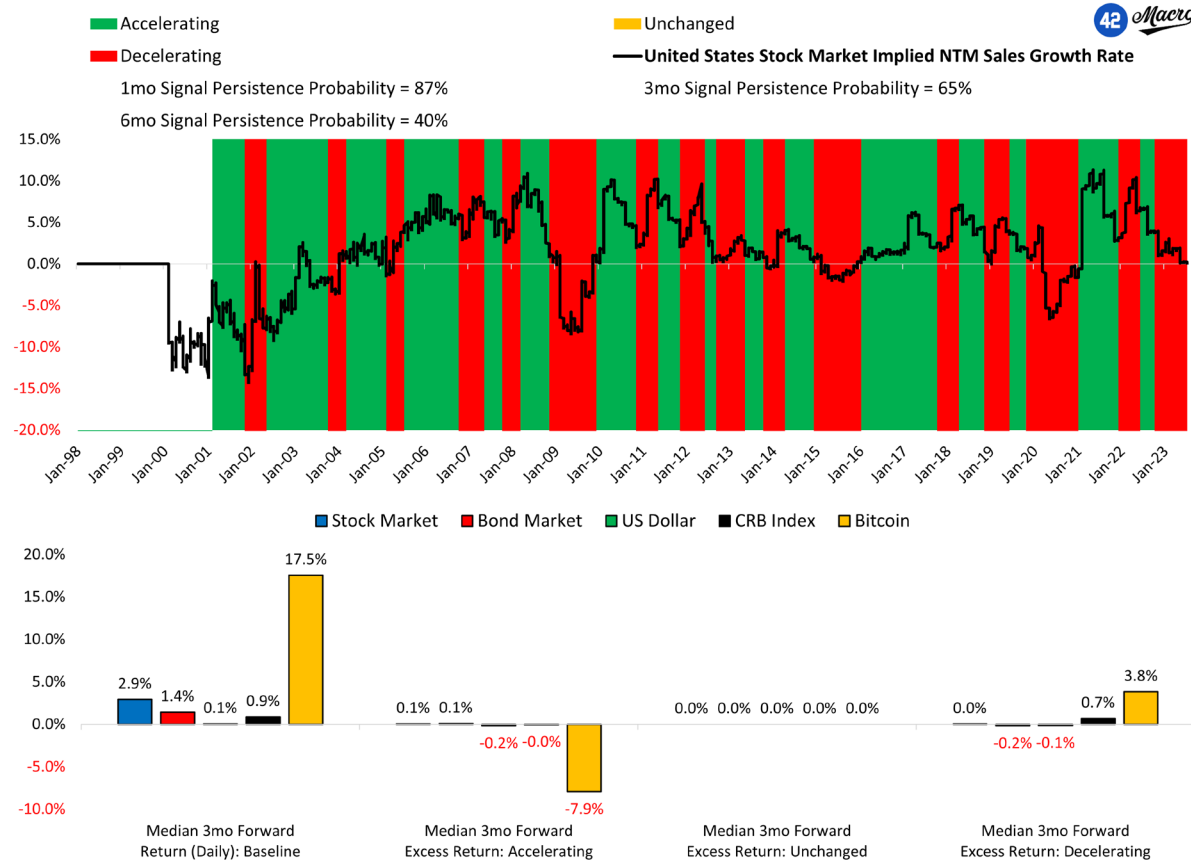


## Employment: Bloomberg Consensus NTM Unemployment Rate Δ

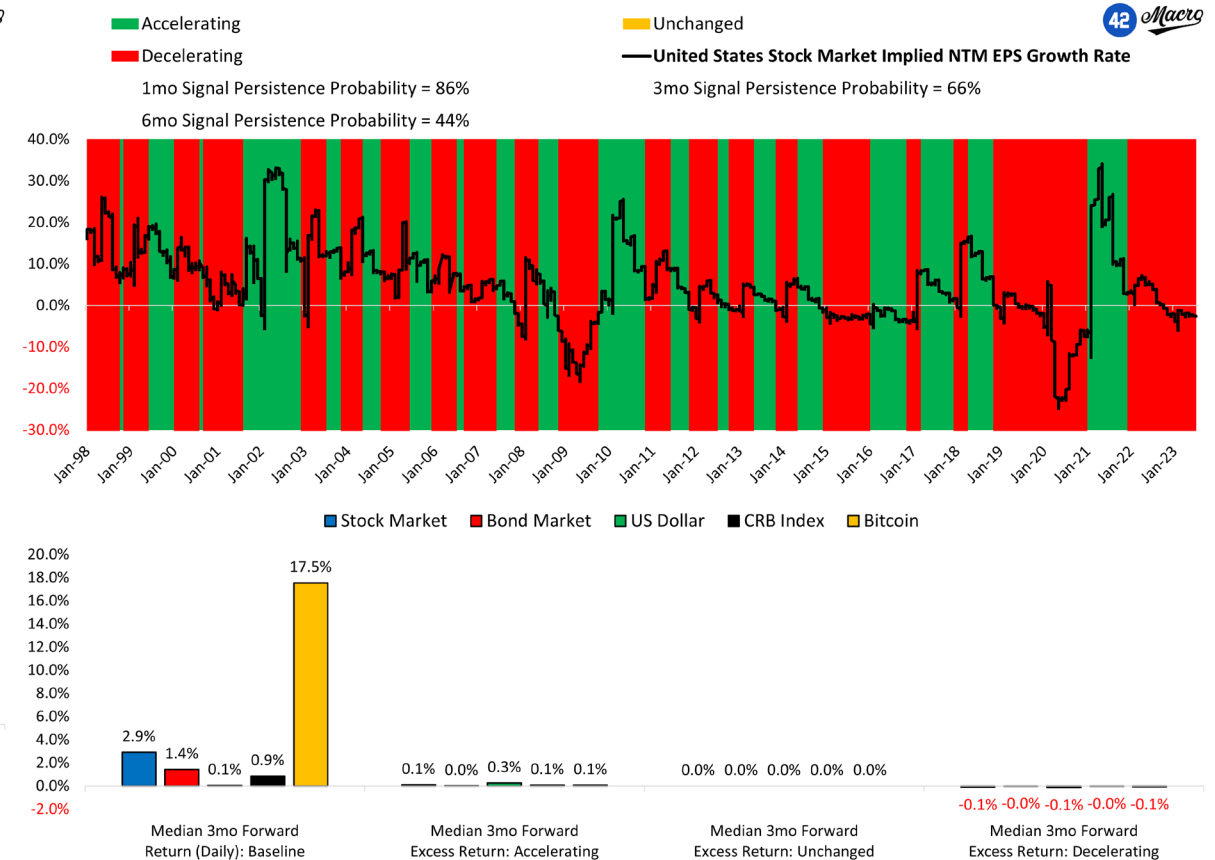


© 42 Macro LLC. Data Source: Bloomberg. The [@42Macro Weather Model](#) works by segmenting each feature into distinct regimes and conducting rolling out-of-sample backtests on indiscrete periods to quantify dispersion across regimes, for each liquid asset class. The dispersion identified by these independent out-of-sample backtests contribute independently to each independent Composite Signal.

# Corporate Profits: Bloomberg Consensus NTM Sales Growth Rate

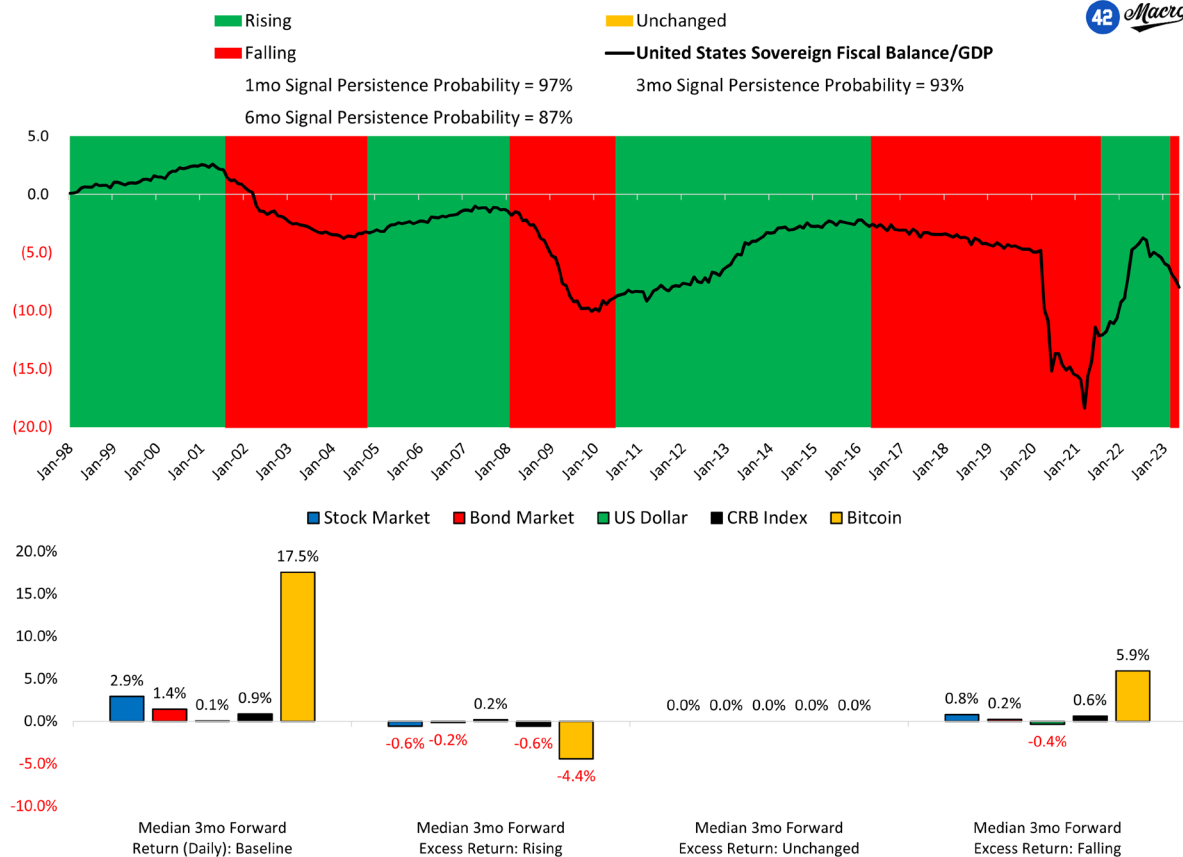


# Corporate Profits: Bloomberg Consensus NTM EPS Growth Rate

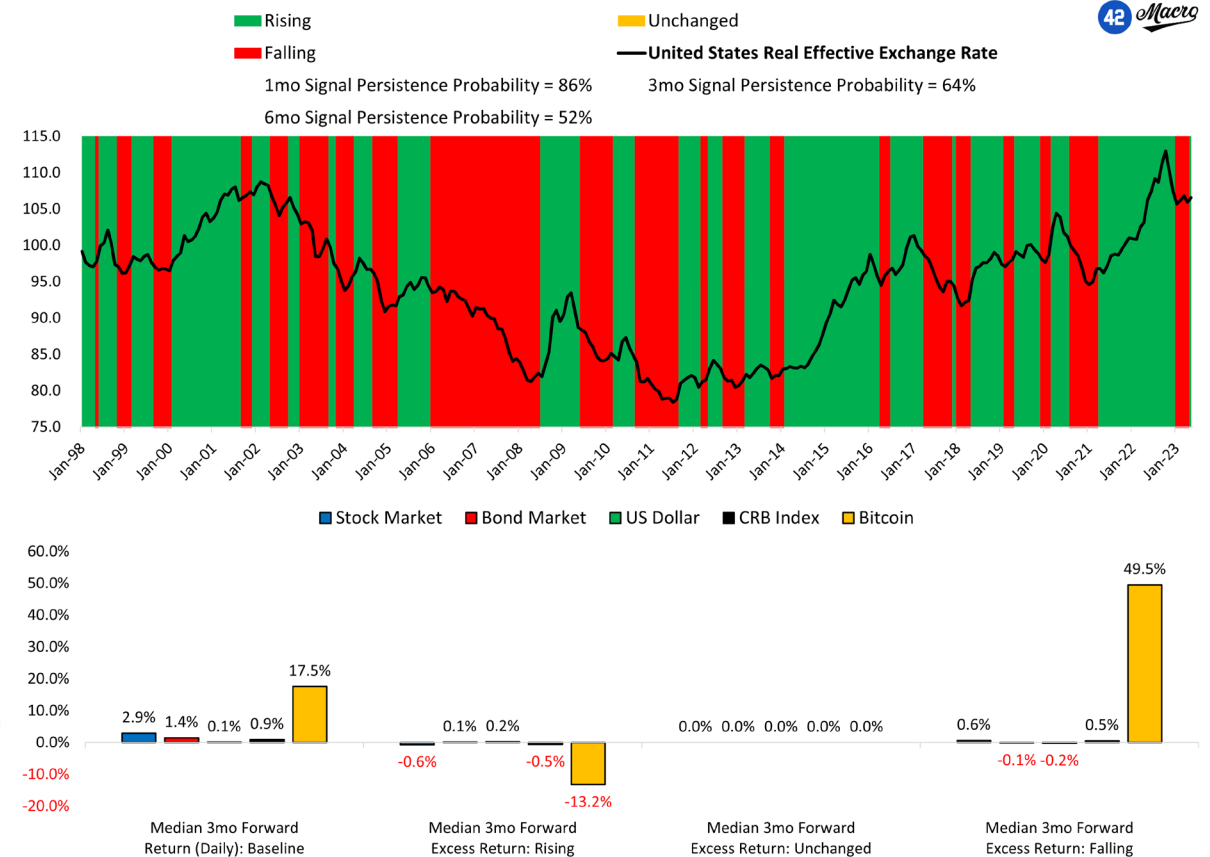


© 42 Macro LLC. Data Source: Bloomberg. The @42Macro Weather Model works by segmenting each feature into distinct regimes and conducting rolling out-of-sample backtests on indiscrete periods to quantify dispersion across regimes, for each liquid asset class. The dispersion identified by these independent out-of-sample backtests contribute independently to each independent Composite Signal.

## Fiscal Policy: Sovereign Fiscal Balance/Nominal GDP



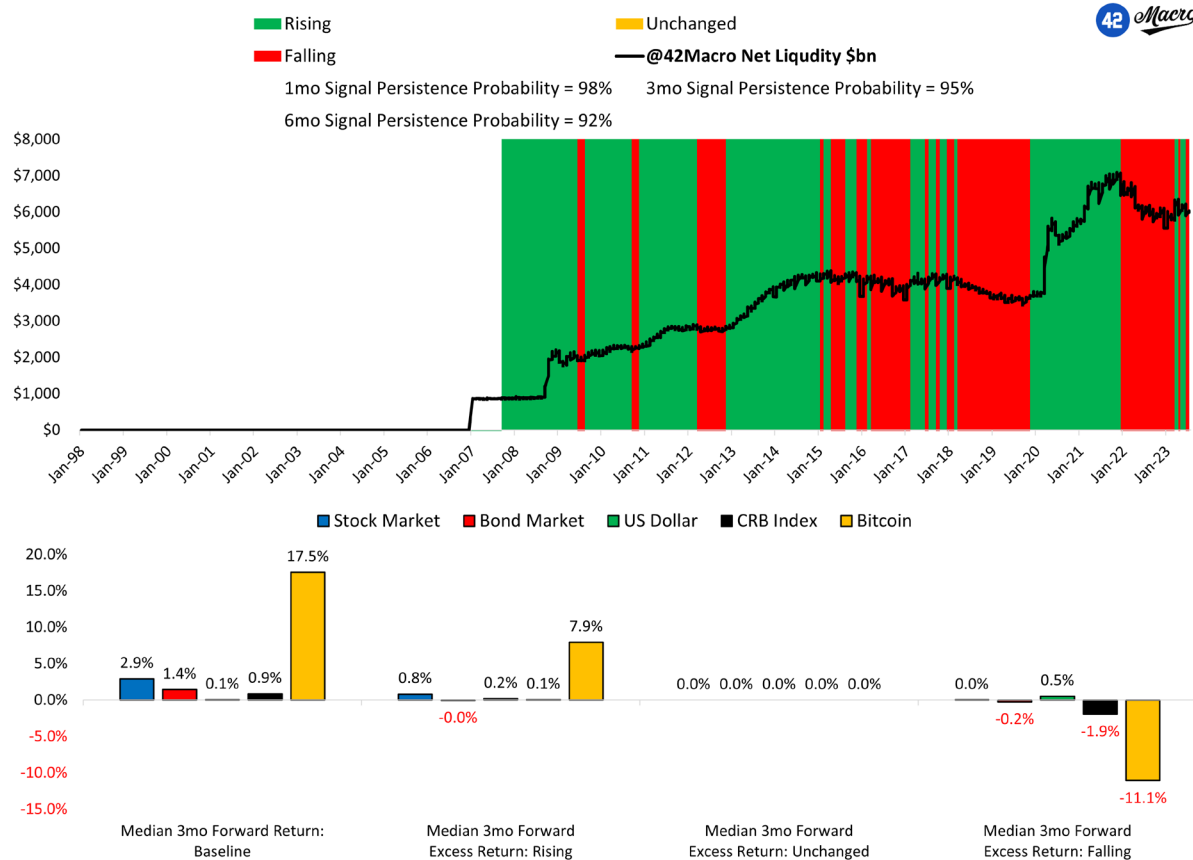
## Fiscal Policy: Real Effective Exchange Rate



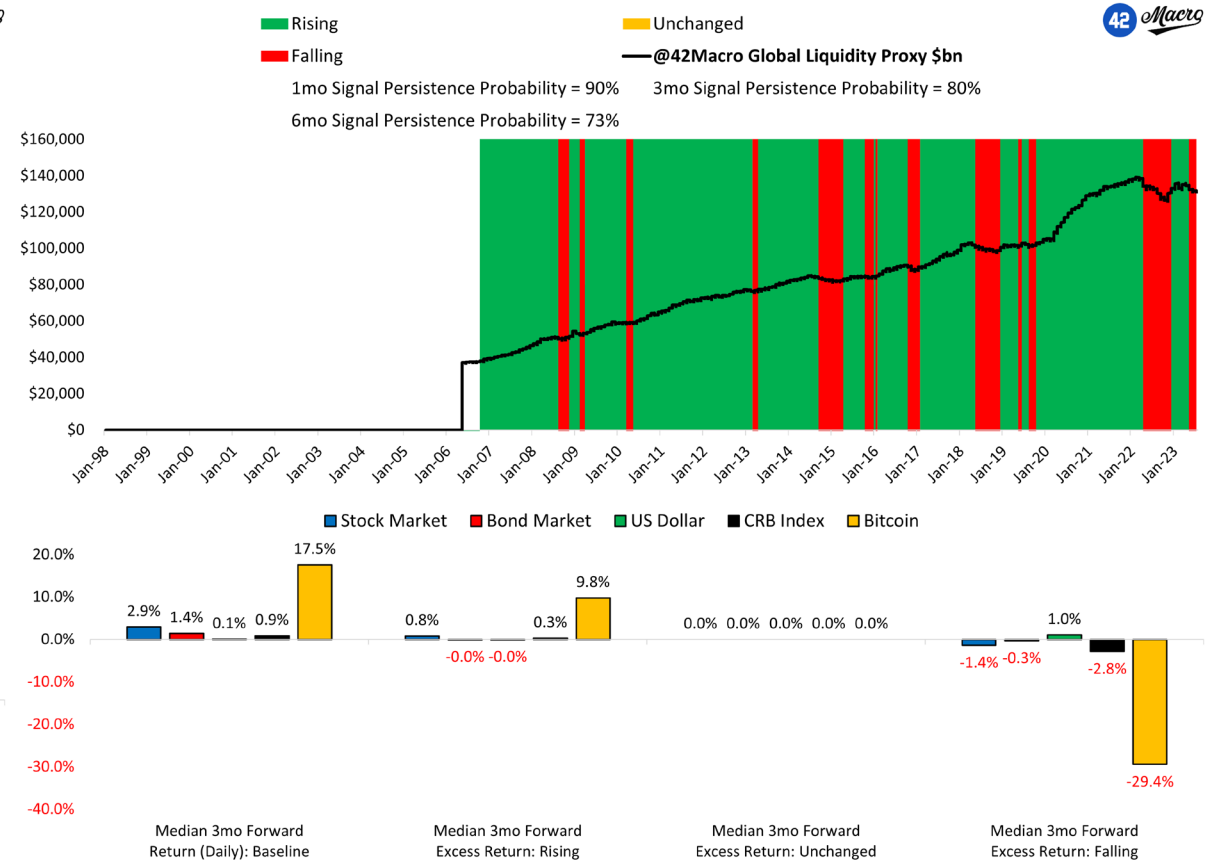
© 42 Macro LLC. Data Source: Bloomberg. The [@42Macro Weather Model](#) works by segmenting each feature into distinct regimes and conducting rolling out-of-sample backtests on indiscrete periods to quantify dispersion across regimes, for each liquid asset class. The dispersion identified by these independent out-of-sample backtests contribute independently to each independent Composite Signal.



# Monetary Policy: @42Macro Net Liquidity

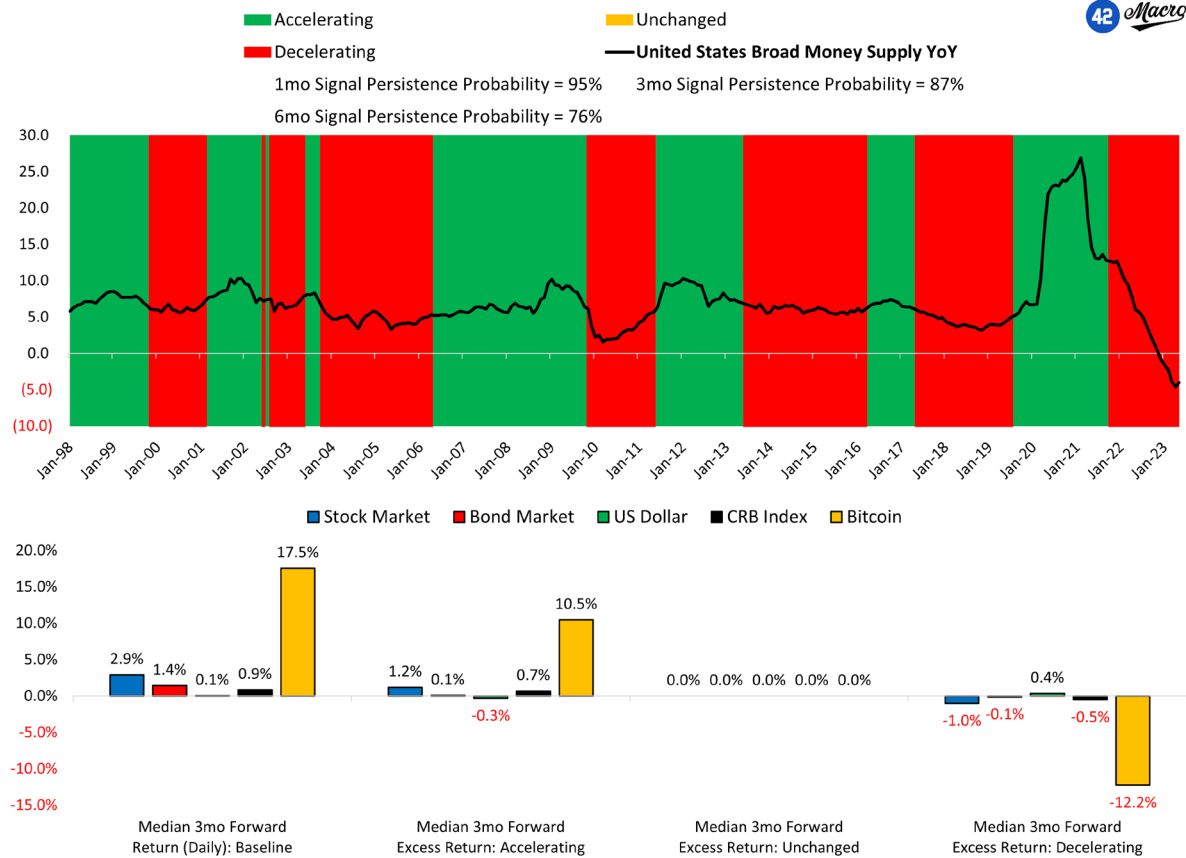


# Monetary Policy: @42Macro Global Liquidity Proxy



© 42 Macro LLC. Data Source: Bloomberg. The @42Macro Weather Model works by segmenting each feature into distinct regimes and conducting rolling out-of-sample backtests on indiscrete periods to quantify dispersion across regimes, for each liquid asset class. The dispersion identified by these independent out-of-sample backtests contribute independently to each independent Composite Signal.

# Liquidity: Domestic Broad Money Supply YoY

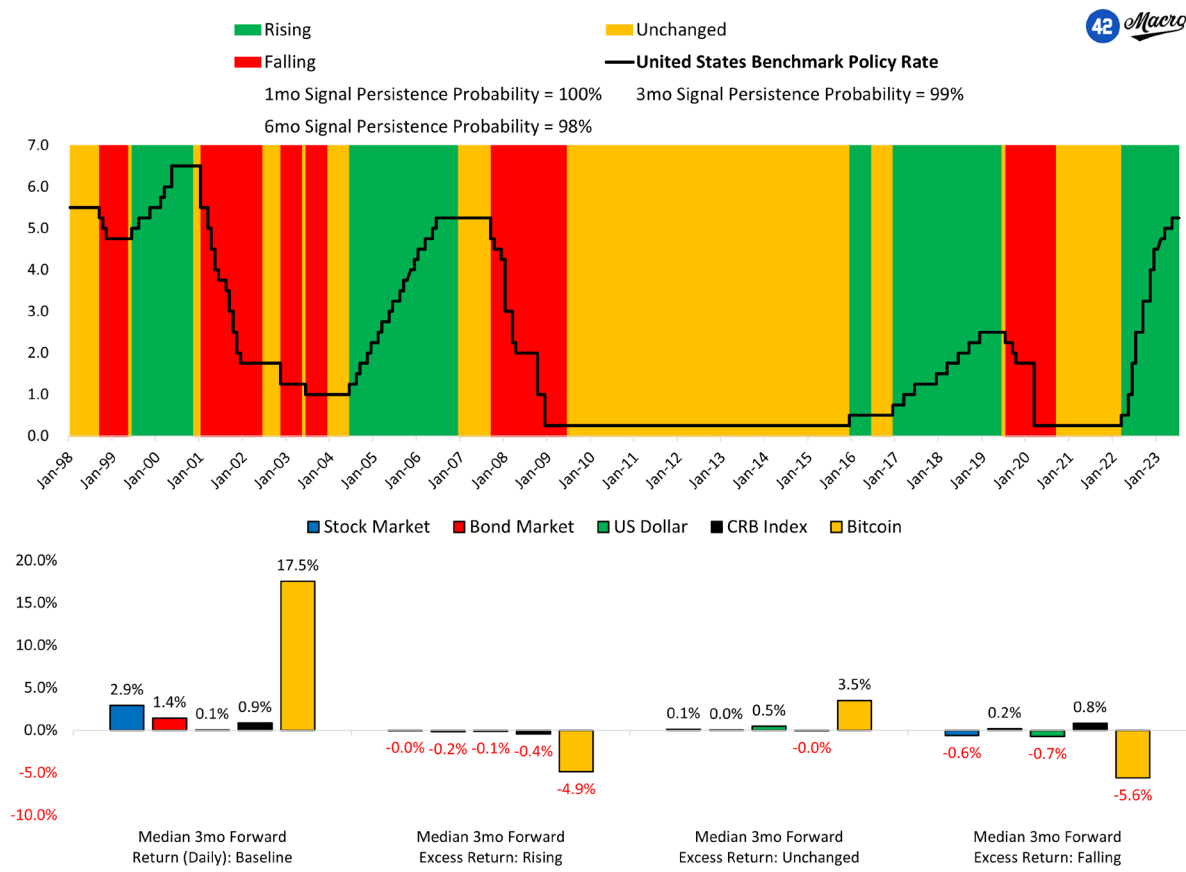


# Liquidity: Global PPP-Weighted Broad Money Supply YoY

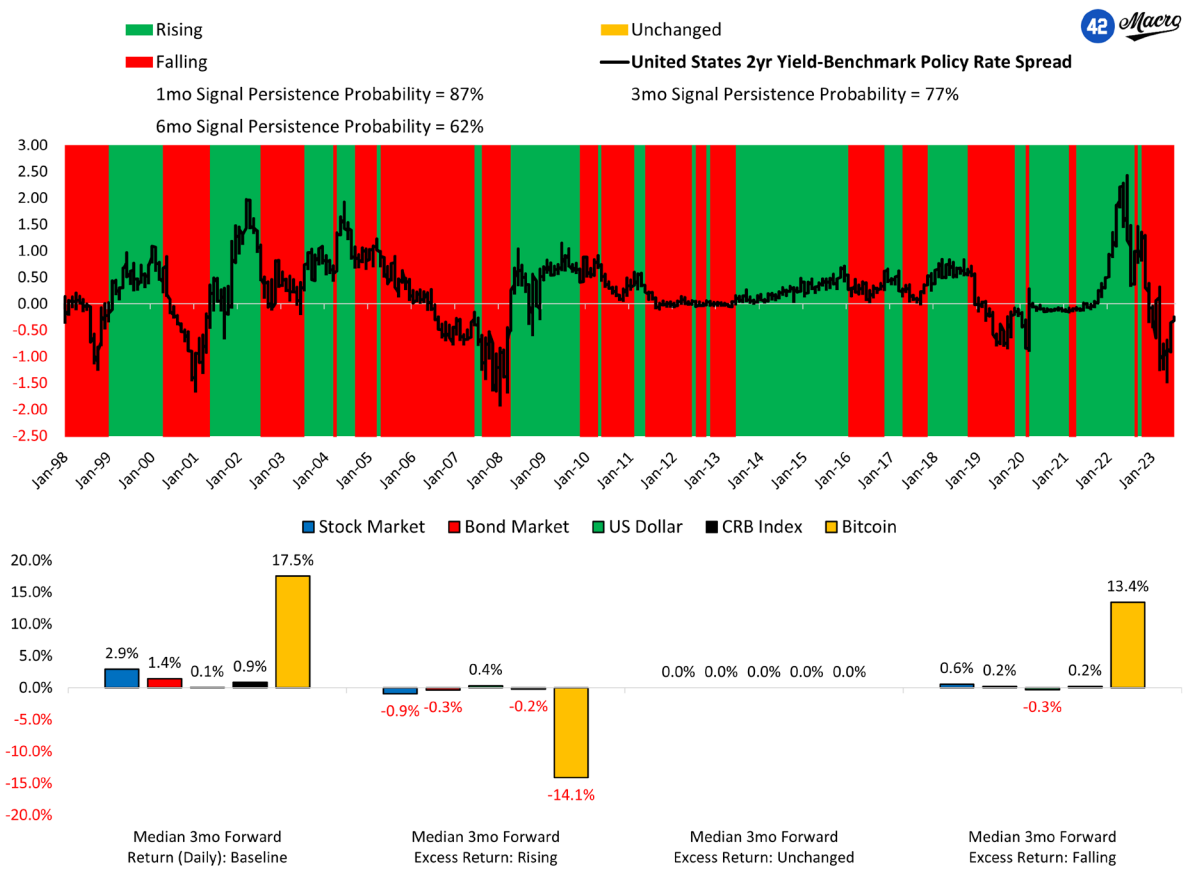


© 42 Macro LLC. Data Source: Bloomberg. The @42Macro Weather Model works by segmenting each feature into distinct regimes and conducting rolling out-of-sample backtests on indiscrete periods to quantify dispersion across regimes, for each liquid asset class. The dispersion identified by these independent out-of-sample backtests contribute independently to each independent Composite Signal.

# Interest Rates: Benchmark Policy Rate



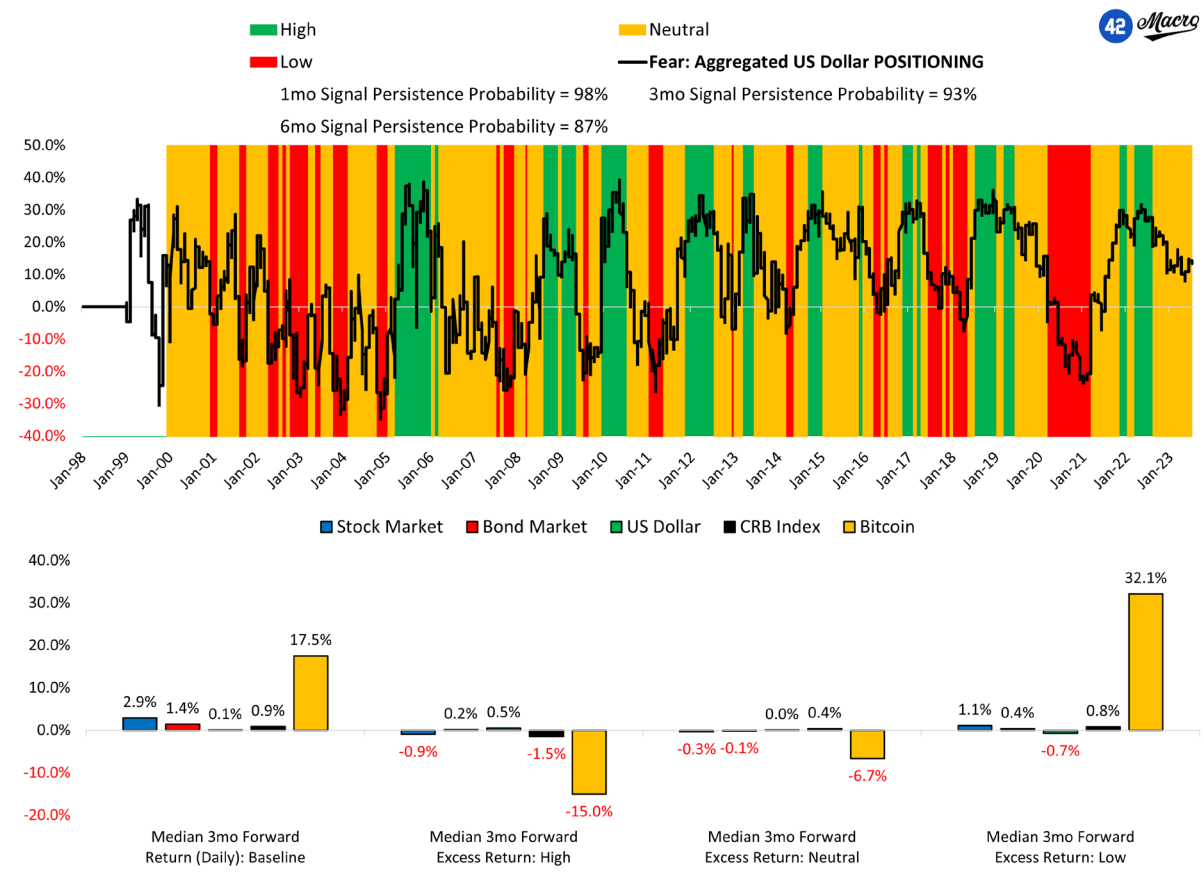
# Interest Rates: 2yr Nominal Yield Spread vs. Benchmark Policy Rate



© 42 Macro LLC. Data Source: Bloomberg. The [@42Macro Weather Model](#) works by segmenting each feature into distinct regimes and conducting rolling out-of-sample backtests on indiscrete periods to quantify dispersion across regimes, for each liquid asset class. The dispersion identified by these independent out-of-sample backtests contribute independently to each independent Composite Signal.

# Fear: Aggregated US Dollar POSITIONING

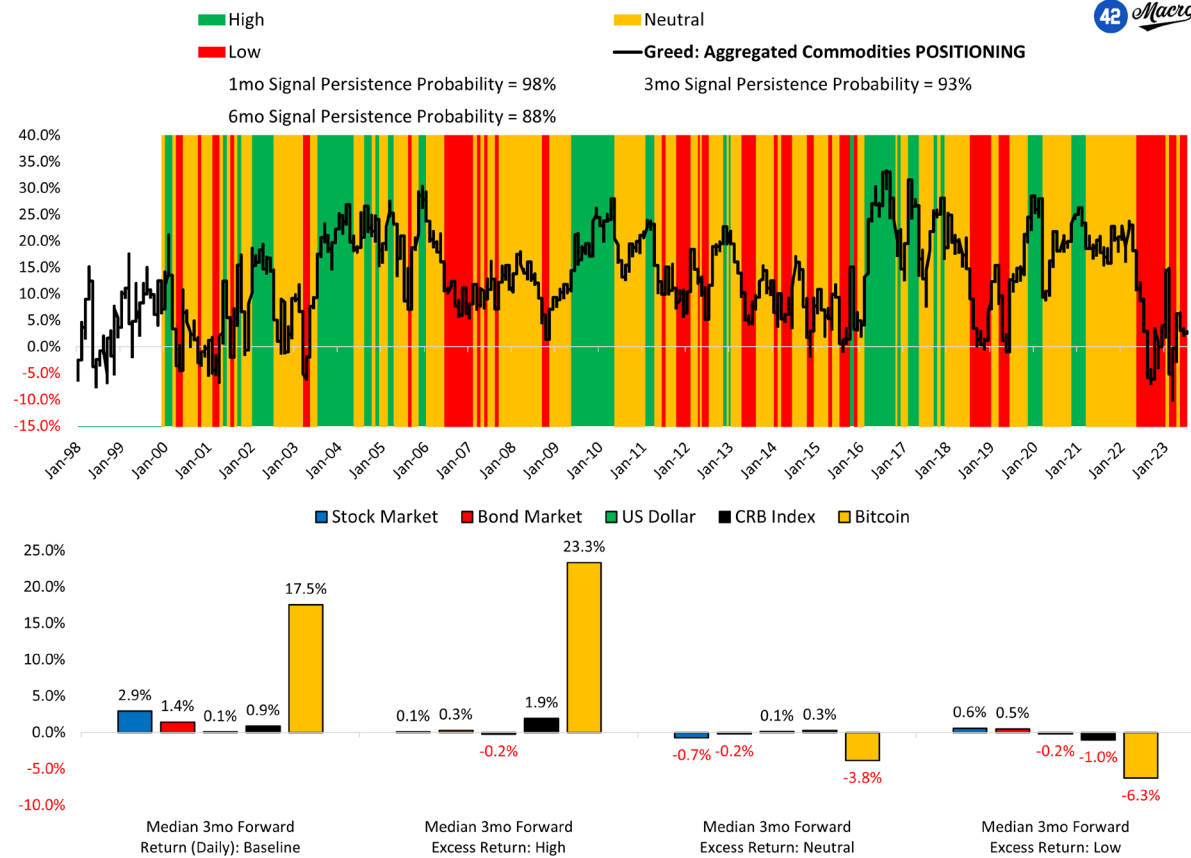
# Fear: Aggregated US Rates POSITIONING



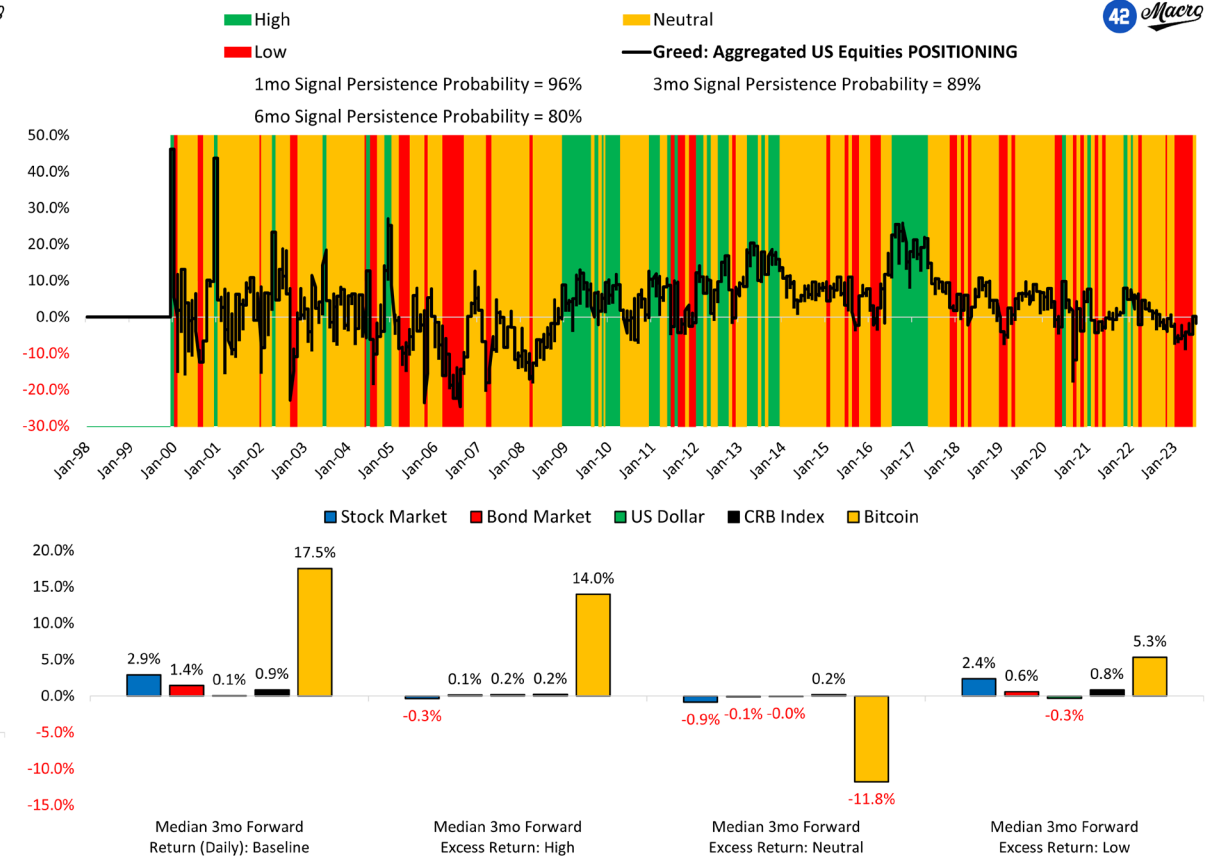
© 42 Macro LLC. Data Source: Bloomberg. The [@42Macro Weather Model](#) works by segmenting each feature into distinct regimes and conducting rolling out-of-sample backtests on indiscrete periods to quantify dispersion across regimes, for each liquid asset class. The dispersion identified by these independent out-of-sample backtests contribute independently to each independent Composite Signal.



# Greed: Aggregated Commodities POSITIONING



# Greed: Aggregated US Equities POSITIONING

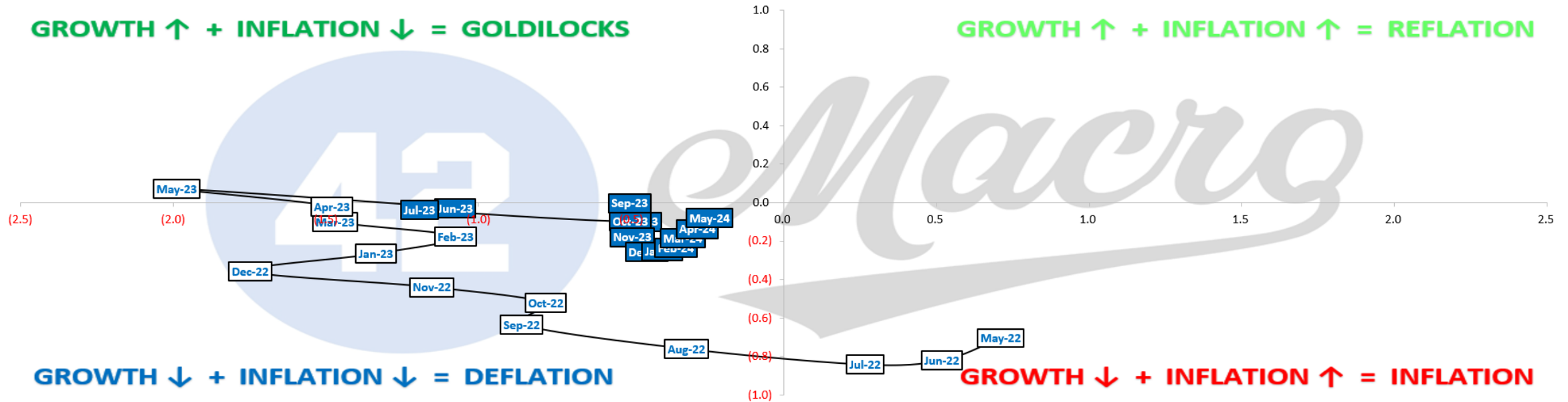


© 42 Macro LLC. Data Source: Bloomberg. The @42Macro Weather Model works by segmenting each feature into distinct regimes and conducting rolling out-of-sample backtests on indiscrete periods to quantify dispersion across regimes, for each liquid asset class. The dispersion identified by these independent out-of-sample backtests contribute independently to each independent Composite Signal.

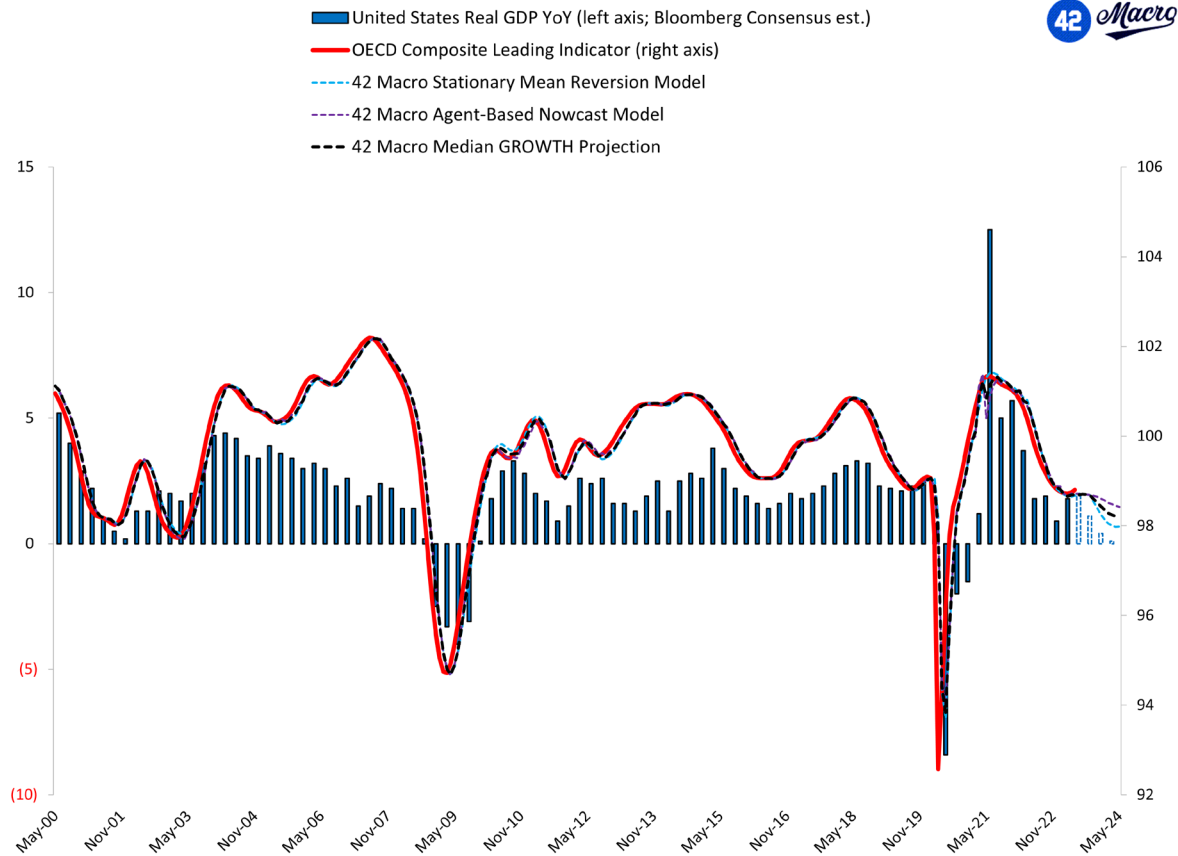
# We Use The @42Macro GRID Model To Forecast Dispersion Within And Across Asset Markets

United States		Actuals																				Projections											
42 Macro GRID Framework		Nov-21	Dec-21	Jan-22	Feb-22	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	
Macro Regime											D	D	D	D	D	D	D	D	D	G	D	D	D	D	D	D	D	D	D	D	D	D	
Conditional Probability of GOLDILOCKS		3%	1%	4%	4%	2%	3%	6%	6%	2%	6%	13%	9%	13%	23%	29%	28%	28%	40%	52%	41%	41%	29%	37%	30%	23%	20%	20%	20%	22%	24%	27%	
Conditional Probability of REFLATION		40%	39%	33%	38%	26%	28%	17%	7%	9%	4%	2%	3%	3%	1%	1%	3%	5%	2%	3%	4%	4%	10%	12%	10%	8%	7%	8%	9%	10%	13%	16%	
Conditional Probability of INFLATION		53%	58%	56%	53%	67%	63%	56%	47%	71%	36%	10%	22%	14%	3%	3%	7%	11%	2%	2%	5%	4%	16%	13%	15%	17%	19%	20%	22%	21%	22%	22%	
Conditional Probability of DEFLATION		4%	2%	7%	5%	5%	6%	21%	41%	18%	53%	76%	66%	69%	73%	67%	61%	55%	56%	43%	50%	51%	46%	39%	46%	52%	54%	52%	49%	47%	41%	36%	
OECD Composite Leading Indicator		101.1	101.0	100.9	100.8	100.6	100.4	100.1	99.8	99.6	99.3	99.2	99.0	98.9	98.8	98.8	98.7	98.7	98.7	98.8	98.7	98.7	98.7	98.7	98.7	98.6	98.5	98.4	98.3	98.3	98.2	98.2	98.2
3mo Δ		-0.1	-0.1	-0.2	-0.3	-0.4	-0.5	-0.7	-0.8	-0.8	-0.8	-0.6	-0.5	-0.4	-0.4	-0.3	-0.2	-0.1	0.0	0.1	0.0	0.0	-0.1	0.0	-0.1	-0.2	-0.3	-0.3	-0.2	-0.2	-0.1	-0.1	
Z-Score (t3yrs)		-0.1	-0.1	-0.1	-0.2	-0.3	-0.3	-0.4	-0.5	-0.5	-0.4	-0.3	-0.3	-0.2	-0.2	0.1	0.3	0.5	0.7	0.9	0.6	0.6	0.4	0.7	0.4	0.1	-0.1	-0.1	0.0	0.1	0.3	0.6	
Headline CPI YoY		6.8	7.0	7.5	7.9	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	3.9	3.7	3.6	3.4	3.2	3.1	3.0	2.8	2.7	2.6	2.6	2.5	
3mo Δ		1.6	1.6	1.3	1.1	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	-1.1	-1.2	-0.5	-0.5	-0.5	-0.5	-0.4	-0.4	-0.4	-0.3	-0.2	-0.2	
Z-Score (t3yrs)		1.1	1.1	0.7	0.5	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	-1.1	-1.1	-0.5	-0.5	-0.5	-0.5	-0.5	-0.4	-0.3	-0.3	-0.2	-0.1	

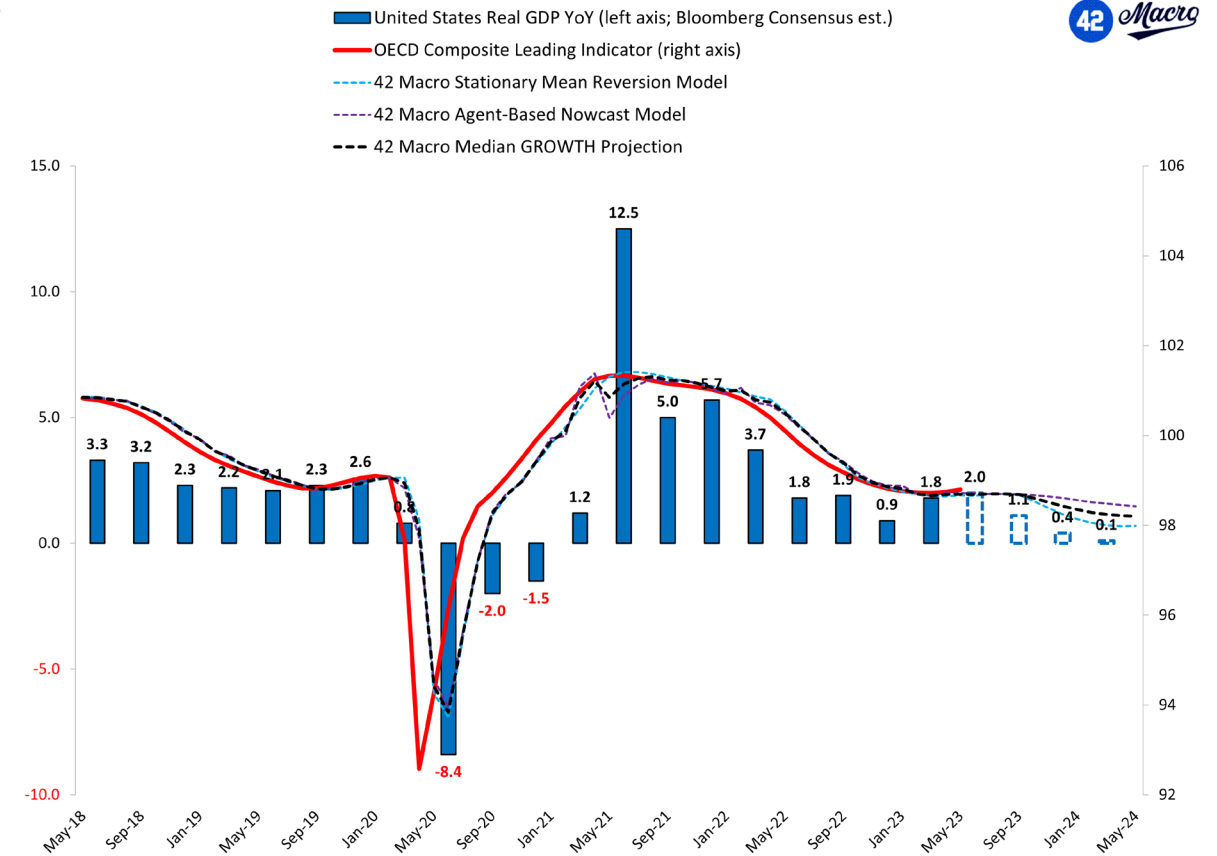
→ x-axis: 3mo Δ of Headline CPI YoY; y-axis: 3mo Δ of OECD Composite Leading Indicator



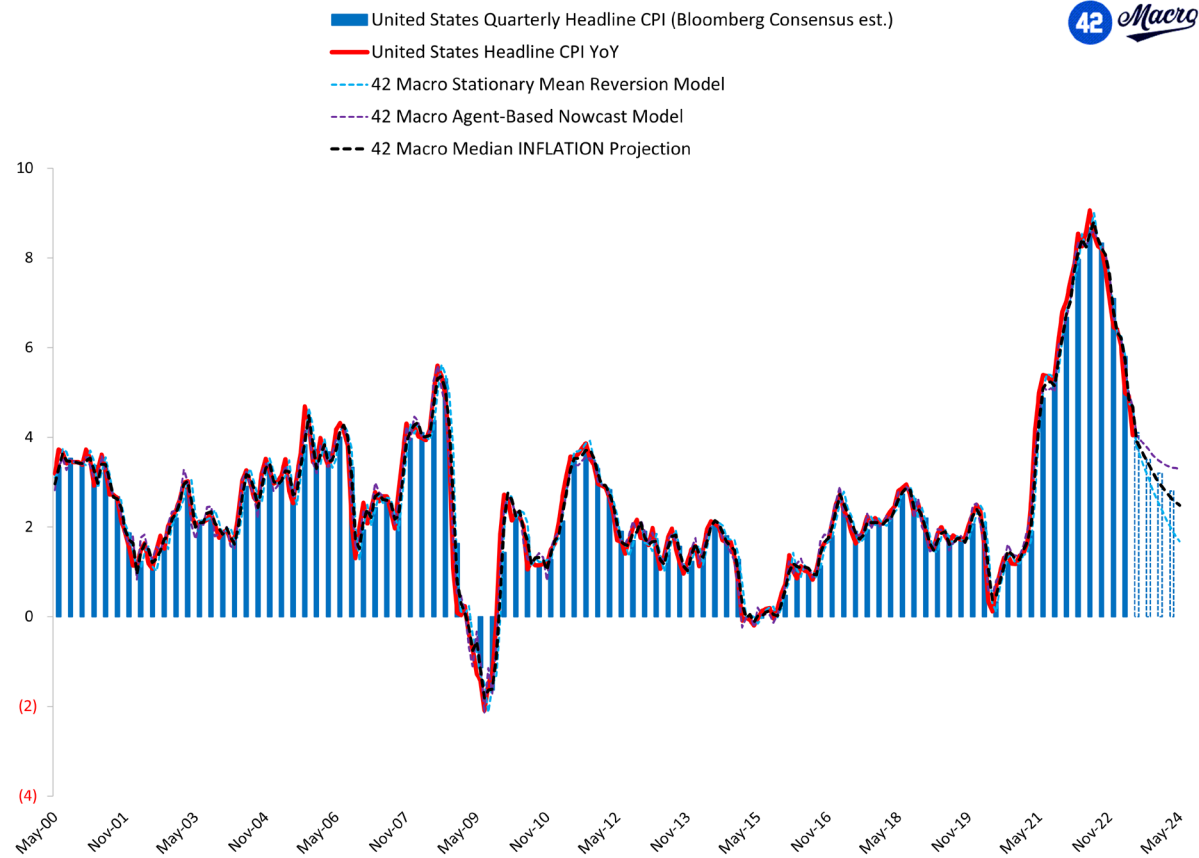
# US GROWTH: Secular View



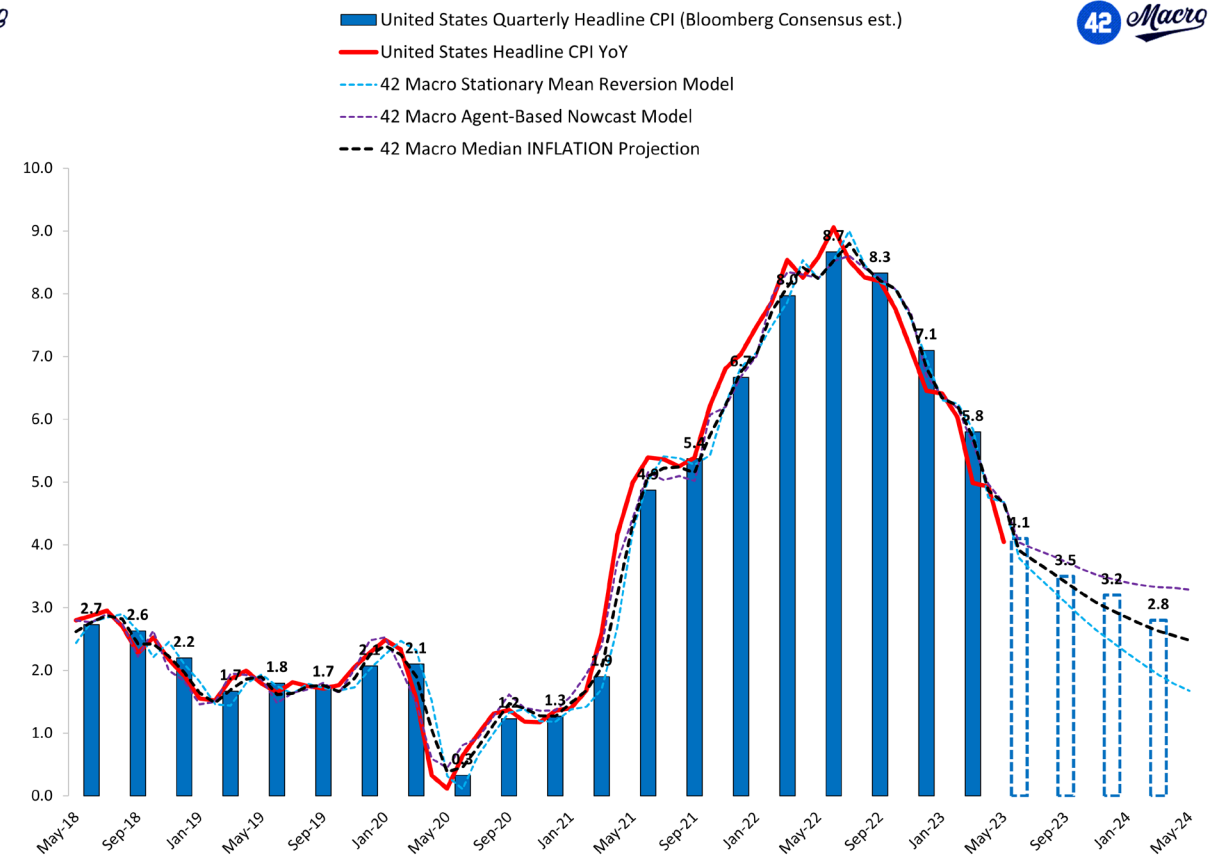
# US GROWTH: Cyclical View



# US INFLATION: Secular View



# US INFLATION: Cyclical View



# The GRIDs Are Global

42 Macro														Actuals														Projections													
Macro Regime	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	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				
United States	R	R	R	R	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	United States			
	Australia	R	R	R	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	Australia				
Brazil	R	R	R	R	R	R	R	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	Brazil			
Canada	R	R	R	R	R	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	Canada				
China	R	R	R	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	China				
France	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	France			
Germany	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Germany			
India	R	R	R	R	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	India				
Indonesia	R	G	R	D	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Indonesia				
Italy	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Italy				
Japan	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Japan				
Korea	R	R	R	D	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Korea				
Mexico	R	R	G	G	R	R	R	R	R	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Mexico				
South Africa	R	R	R	G	R	R	R	R	R	R	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	South Africa				
Spain	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Spain				
Taiwan	R	R	G	G	R	R	R	R	R	R	D	R	R	R	R	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	Taiwan				
Turkey	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Turkey				
United Kingdom	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	United Kingdom				
Eurozone	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Eurozone				
World	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	World				
MEDIAN Conditional Probability of GOLDILOCKS	3%	3%	13%	19%	11%	3%	3%	2%	5%	5%	2%	1%	2%	2%	1%	1%	5%	6%	7%	22%	26%	17%	24%	33%	28%	24%	32%	32%	32%	27%	22%	19%	18%	18%	21%	24%	25%				
MEDIAN Conditional Probability of REFLECTION	73%	62%	49%	45%	46%	43%	38%	29%	23%	19%	16%	22%	13%	9%	11%	12%	9%	8%	10%	7%	3%	5%	5%	3%	3%	5%	6%	10%	9%	7%	5%	4%	4%	5%	7%	8%	10%				
MEDIAN Conditional Probability of INFLATION	7%	19%	16%	18%	27%	42%	51%	60%	50%	52%	64%	74%	68%	66%	73%	69%	54%	51%	33%	13%	6%	7%	10%	9%	16%	15%	13%	14%	13%	15%	16%	18%	18%	18%	19%	19%					
MEDIAN Conditional Probability of DEFLATION	1%	1%	6%	9%	8%	5%	3%	2%	10%	12%	6%	2%	3%	7%	5%	6%	27%	33%	42%	49%	47%	39%	43%	52%	52%	51%	50%	42%	44%	51%	56%	59%	59%	55%	51%	46%	42%				

Data Source: Bloomberg. Intellectual property of 42 Macro LLC. GRID Regime backtests performed on monthly observations on a rolling out of sample basis beginning in Jan-98.



# Why GRID Works

- **Regime Segmentation:** *“I knew which shifts in the environment caused asset classes to move around, and I knew that those relationships had remained essentially the same for hundreds of years. There were only two big forces to worry about: growth and inflation. Each could be rising or falling, so I saw that by finding four different investment strategies – each one of which would do well in a particular environment (rising growth with rising inflation, rising growth with falling inflation, and so on) – I could construct an asset allocation mix that was balanced to do well over time while being protected against unacceptable losses.”*  
–Ray Dalio, Principles pg. 70
- **Bayesian Inference:** *“Subjective confidence in a judgment is not a reasoned evaluation of the probability that this judgment is correct. Confidence is a feeling, which reflects the coherence of the information and the cognitive ease of processing it. It is wise to take admissions of uncertainty serious, but declarations of high confidence mainly tell you that an individual has constructed a coherent story in his mind, not necessarily that the story is true.”*  
–Danny Kahneman & Amos Tversky, Thinking, Fast and Slow pg. 212
- **Volatility as a Leading Indicator for Price:** *“You cannot beat the market, says the standard market doctrine. Granted. But you can sidestep its worst punches.”*  
–Benoit Mandelbrot, The (Mis)Behavior of Markets pg. 249

# KISS Portfolio Construction Process = Keep It Simple & Systematic

- I. **Factor Selection Process:** We use our GRID Asset Market Backtests to construct a 60/30/10 portfolio that is designed to outperform the standard 60/40.
- The @42Macro KISS Portfolio Construction process is a thoughtful evolution of the 60/40 portfolio framework. Our 60/30/10 approach is designed to simplify investing, minimize downside capture during bear markets, and maximize upside capture during bull markets.
  - Step 1: Determine what YOUR 60% Equity exposure is. Low Beta stocks (SPLV) might be suitable for a person in or nearing retirement, whereas a person earlier in their investment journey might find high-flying NASDAQ stocks (QQQ) more attractive. Our default Equity exposure is the S&P 500 (SPY).
  - Step 2: We use a sophisticated quantitative process to determine the other 40%, which is comprised of 30% Fixed Income and 10% Macro asset classes, which are Currencies, Commodities, Crypto, and Volatility. Allocate a Target Exposure of 10% to the top three Fixed Income exposures according to the current GRID Regime as indicated by the @42Macro Weather Model. Allocate the remaining Target Exposure of 10% to the top Macro exposure according to the current GRID Regime as indicated by the Weather Model.
  - Step 3: If the Weather Model indicates a HIGH-conviction GRID Regime, then each of the Fixed Income and Macro exposures must correspond to that GRID Regime. If the Weather Model indicates a MEDIUM-conviction GRID Regime, then two of the three Fixed Income exposures must correspond to that GRID Regime and the other one must correspond to the GRID Regime implied by consensus NTM growth and inflation expectations. If the Weather Model indicates a LOW-conviction GRID Regime, then only one of the three Fixed Income exposures must correspond to that GRID Regime and the other two must correspond to the GRID Regime implied by consensus NTM growth and inflation expectations. Additionally, the Macro exposure must pivot to the GRID Regime implied by consensus NTM growth and inflation expectations in a LOW-conviction GRID Regime. This process helps investors proactively prepare for and profit from inflections in the Market Cycle, which tend to cause maximum volatility in consensus exposures.
- II. **Top-Down Risk Management Overlay:** We use our Macro Weather Model to incorporate volatility targeting into the Target Exposures for each asset class.
- If the Weather Model signal for Equities is BULLISH, then the Target Exposure for the SPY = 60%. If the Weather Model signal for Fixed Income and the corresponding Macro asset class is BULLISH, then the Target Exposure per corresponding position = 10%. We use the inverse of the US Dollar Weather Model signal for Gold and the inverse of the Equities and Fixed Income Weather Model signals for their respective Volatility instruments.
  - If the Weather Model signal for Equities is NEUTRAL, then the Target Exposure for the SPY = 50%. If the Weather Model signal for the Fixed Income and the corresponding Macro asset class is NEUTRAL, then the Target Exposure per corresponding position = 7.5%.
  - If the Weather Model signal for Equities is BEARISH, then the Target Exposure for the SPY = 40%. If the Weather Model signal for Fixed Income and the corresponding Macro asset class is BEARISH, then the Target Exposure per corresponding position = 5%.
- III. **Bottom-Up Risk Management Overlay:** We use our Volatility-Adjusted Momentum Signal to dynamically adjust the Actual Exposures.
- If the exposure is Bullish VAMS, then the Actual Exposure = 100% of the Target Exposure
  - If the exposure is Neutral VAMS, then the Actual Exposure = 50% of the Target Exposure
  - If the exposure is Bearish VAMS, then the Actual Exposure = 0% of the Target Exposure

# KISS Portfolio Construction Process: GRID Asset Market Backtests

FACTOR (ETF)	Annualized Expected Return				Percent Positive Ratio				Volatility				Covariance w/ US Equity beta				FACTOR (ETF)	KISS Expected Sharpe Ratio Rankings			
	GOLDOLOCKS	REFLECTION	INFLATION	DEFLATION	GOLDOLOCKS	REFLECTION	INFLATION	DEFLATION	GOLDOLOCKS	REFLECTION	INFLATION	DEFLATION	GOLDOLOCKS	REFLECTION	INFLATION	DEFLATION		GOLDOLOCKS	REFLECTION	INFLATION	DEFLATION
S&P 500 (SPY)	24%	12%	-7%	-3%	72%	65%	44%	52%	11%	9%	15%	16%	1.00	1.00	1.00	1.00	S&P 500 (SPY)	11	4	12	9
S&P 100 (OEF)	25%	13%	-5%	-5%	73%	62%	46%	51%	11%	9%	14%	15%	0.99	0.98	0.99	0.99	S&P 100 (OEF)	8	6	6	11
NASDAQ 100 (QQQ)	36%	25%	-2%	-3%	72%	64%	53%	51%	13%	16%	23%	23%	0.83	0.78	0.82	0.86	NASDAQ 100 (QQQ)	4	3	1	7
S&P 400 (VO)	34%	17%	-5%	-1%	84%	65%	52%	53%	10%	10%	14%	20%	0.88	0.76	0.90	0.96	S&P 400 (VO)	1	1	9	6
Russell 2000 (IWM)	42%	15%	-6%	-3%	77%	67%	50%	53%	14%	11%	18%	21%	0.82	0.65	0.80	0.93	Russell 2000 (IWM)	3	5	7	8
High Beta (SPHB)	49%	21%	-13%	-11%	74%	59%	44%	52%	20%	15%	27%	30%	0.87	0.77	0.87	0.94	High Beta (SPHB)	5	9	11	12
Low Beta (SPLV)	19%	7%	-3%	4%	75%	56%	47%	52%	8%	8%	12%	12%	0.83	0.62	0.79	0.85	Low Beta (SPLV)	9	12	4	1
Dividend Compounds (SPHD)	25%	8%	-1%	3%	84%	57%	53%	56%	8%	8%	12%	15%	0.90	0.76	0.83	0.91	Dividend Compounds (SPHD)	2	11	2	2
Momentum (MTUM)	29%	18%	-3%	-1%	76%	63%	49%	53%	12%	11%	15%	16%	0.91	0.82	0.84	0.92	Momentum (MTUM)	6	2	3	5
Quality (QUAL)	26%	12%	-4%	0%	74%	63%	50%	50%	11%	9%	14%	14%	0.97	0.95	0.98	0.97	Quality (QUAL)	10	8	5	3
Growth (IWF)	26%	16%	-6%	-1%	71%	60%	49%	50%	12%	11%	16%	17%	0.96	0.92	0.96	0.96	Growth (IWF)	12	7	8	4
Value (IWD)	26%	10%	-5%	-4%	74%	60%	48%	54%	11%	8%	13%	16%	0.96	0.88	0.95	0.96	Value (IWD)	7	10	10	10
Consumer Discretionary (XLY)	34%	16%	-5%	-3%	80%	59%	47%	53%	11%	12%	17%	20%	0.83	0.85	0.88	0.93	Consumer Discretionary (XLY)	2	3	6	6
Consumer Staples (XLP)	17%	3%	0%	6%	69%	53%	60%	53%	7%	9%	11%	13%	0.67	0.52	0.49	0.71	Consumer Staples (XLP)	7	11	4	2
Communication Services (XLC)	12%	8%	-7%	-7%	58%	51%	52%	53%	10%	15%	20%	17%	0.58	0.59	0.75	0.69	Communication Services (XLC)	10	10	9	9
Energy (XLE)	28%	12%	-6%	3%	70%	56%	44%	51%	15%	16%	19%	24%	0.53	0.40	0.58	0.71	Energy (XLE)	9	7	7	3
Financials (XLF)	33%	13%	-9%	-10%	75%	57%	44%	53%	13%	12%	18%	22%	0.88	0.65	0.83	0.87	Financials (XLF)	5	4	10	10
Health Care (XLV)	18%	9%	1%	8%	74%	60%	52%	59%	9%	10%	12%	14%	0.76	0.53	0.62	0.78	Health Care (XLV)	8	6	3	1
Industrials (XLI)	30%	16%	-6%	-6%	82%	63%	45%	53%	11%	11%	15%	20%	0.86	0.86	0.89	0.94	Industrials (XLI)	3	2	8	8
Information Technology (XLK)	34%	23%	-2%	-3%	72%	63%	51%	52%	13%	16%	24%	23%	0.81	0.78	0.86	0.87	Information Technology (XLK)	6	1	5	5
Materials (XLB)	33%	13%	-11%	0%	75%	63%	40%	49%	12%	14%	17%	22%	0.76	0.67	0.80	0.86	Materials (XLB)	4	5	11	4
Real Estate (XLRE)	18%	6%	3%	-5%	86%	52%	56%	64%	3%	7%	11%	13%	0.94	0.52	0.80	0.87	Real Estate (XLRE)	1	8	2	11
Utilities (XLU)	8%	6%	8%	-2%	64%	59%	62%	56%	10%	12%	14%	14%	0.40	0.15	0.49	0.57	Utilities (XLU)	11	9	1	7
Emerging Markets (EEM)	43%	18%	-21%	-8%	79%	63%	39%	51%	14%	13%	18%	22%	0.63	0.47	0.69	0.83	Emerging Markets (EEM)	1	1	6	5
Brazil (EWZ)	45%	22%	-6%	-17%	62%	57%	47%	49%	24%	28%	31%	33%	0.60	0.23	0.57	0.69	Brazil (EWZ)	7	6	2	7
China (FXI)	41%	17%	-32%	4%	77%	57%	34%	54%	17%	23%	23%	32%	0.42	0.22	0.44	0.61	China (FXI)	3	7	7	2
India (INDA)	45%	21%	1%	-4%	74%	64%	51%	48%	17%	17%	20%	21%	0.33	0.23	0.41	0.66	India (INDA)	2	3	1	3
Japan (DXJ)	30%	16%	-13%	-7%	71%	64%	42%	47%	13%	13%	13%	16%	0.42	0.18	0.44	0.69	Japan (DXJ)	5	2	4	6
United Kingdom (EWU)	25%	7%	-17%	8%	69%	63%	44%	54%	14%	10%	16%	21%	0.42	0.41	0.61	0.65	United Kingdom (EWU)	6	5	5	1
Eurozone (EZU)	26%	11%	-14%	-4%	72%	59%	47%	49%	11%	10%	16%	17%	0.84	0.64	0.82	0.86	Eurozone (EZU)	4	4	3	4
Barclays Agg (AGG)	6%	1%	4%	8%	66%	56%	61%	70%	4%	3%	6%	5%	0.16	[0.00]	0.16	0.23	Barclays Agg (AGG)	10	13	7	3
EM Local Currency Bonds (EMLC)	8%	6%	-4%	1%	67%	63%	48%	55%	6%	5%	8%	10%	0.65	0.21	0.54	0.72	EM Local Currency Bonds (EMLC)	11	9	13	13
EM USD Bonds (EMB)	13%	7%	7%	3%	72%	65%	62%	64%	5%	5%	7%	13%	0.51	0.29	0.52	0.66	EM USD Bonds (EMB)	5	7	6	10
5-10yr TIPS (TIP)	4%	4%	8%	3%	61%	60%	66%	67%	4%	4%	5%	6%	0.07	0.06	[0.04]	0.47	5-10yr TIPS (TIP)	13	10	3	7
5-10yr Treasuries (IEF)	1%	-1%	8%	10%	57%	44%	64%	68%	4%	4%	4%	5%	[0.24]	[0.08]	[0.28]	[0.13]	5-10yr Treasuries (IEF)	14	14	4	2
1-3yr Treasuries (SHY)	1%	1%	3%	4%	74%	59%	70%	79%	1%	1%	1%	2%	[0.39]	[0.09]	[0.20]	[0.25]	1-3yr Treasuries (SHY)	7	8	1	1
Convertibles (CWB)	27%	14%	-6%	3%	89%	70%	47%	59%	8%	6%	8%	13%	0.88	0.72	0.87	0.89	Convertibles (CWB)	1	2	15	8
High Yield Credit (HYG)	16%	7%	2%	1%	80%	72%	61%	62%	6%	4%	7%	11%	0.77	0.36	0.59	0.72	High Yield Credit (HYG)	3	3	10	12
Investment Grade Credit (LQD)	9%	2%	2%	9%	64%	60%	58%	69%	6%	3%	7%	7%	0.32	0.09	0.29	0.46	Investment Grade Credit (LQD)	8	12	11	5
MBS (MBB)	6%	2%	3%	8%	76%	56%	62%	79%	5%	2%	6%	6%	0.15	0.01	0.21	0.14	MBS (MBB)	9	11	9	4
25+ Year Treasuries (TLT)	-2%	-5%	14%	14%	56%	44%	61%	59%	8%	8%	10%	13%	[0.22]	[0.09]	[0.27]	[0.14]	25+ Year Treasuries (TLT)	15	15	5	6
0-5yr TIPS (STIP)	2%	4%	4%	1%	59%	68%	65%	56%	2%	2%	2%	3%	0.19	0.16	[0.07]	0.56	0-5yr TIPS (STIP)	12	4	2	9
BDCs (BIZD)	32%	19%	-7%	-3%	77%	69%	49%	51%	15%	10%	14%	29%	0.75	0.51	0.76	0.84	BDCs (BIZD)	6	5	14	14
Leveraged Loans (BKLN)	10%	7%	2%	1%	90%	88%	68%	67%	4%	2%	3%	8%	0.57	0.20	0.37	0.55	Leveraged Loans (BKLN)	2	1	8	11
Preferreds (PFF)	10%	9%	-2%	-5%	74%	67%	59%	57%	4%	5%	8%	11%	0.44	0.41	0.50	0.56	Preferreds (PFF)	4	6	12	15
US Dollar (UUP)	-3%	0%	3%	4%	45%	52%	53%	54%	5%	4%	5%	6%	[0.50]	[0.35]	[0.42]	[0.64]	US Dollar (UUP)	10	11	4	1
Inverse US Dollar (UDN)	4%	1%	-2%	-4%	55%	48%	51%	44%	5%	4%	5%	6%	0.48	0.36	0.41	0.65	Inverse US Dollar (UDN)	4	9	10	10
Gold (GLD)	11%	8%	24%	7%	56%	51%	56%	55%	16%	13%	23%	14%	0.08	0.12	0.07	0.16	Gold (GLD)	5	5	2	2
Commodities (DBC)	7%	13%	-2%	-7%	60%	64%	46%	43%	6%	7%	7%	10%	0.23	0.29	0.16	0.39	Commodities (DBC)	3	2	9	9
Agriculture (DBA)	9%	1%	12%	-10%	52%	45%	50%	44%	15%	14%	22%	17%	0.08	0.12	0.00	0.25	Agriculture (DBA)	6	10	6	6
Energy (USO)	-1%	23%	-3%	-16%	39%	64%	47%	49%	20%	22%	28%	28%	0.04	0.22	0.03	0.46	Energy (USO)	8	3	8	8
Industrial Metals (DBB)	33%	17%	-13%	-10%	67%	62%	43%	46%	17%	15%	17%	17%	0.49	0.35	0.33	0.60	Industrial Metals (DBB)	2	4	11	7
Precious Metals (DBP)	7%	5%	13%	1%	54%	47%	52%	51%	18%	15%	25%	15%	0.13	0.19	0.11	0.21	Precious Metals (DBP)	7	8	5	4
Bitcoin (BITO)	483%	90%	60%	-26%	100%	56%	50%	32%	29%	36%	27%	19%	0.05	0.05	0.15	0.25	Bitcoin (BITO)	1	1	1	11
Interest Rate Volatility (PFIIX)	-10%	8%	5%	-3%	33%	52%	50%	40%	12%	13%	11%	9%	[0.19]	[0.11]	[0.47]	[0.53]	Interest Rate Volatility (PFIIX)	9	6	7	5
Equity Volatility (VIXM)	-36%	28%	79%	28%	36%	49%	56%	44%	45%	48%	86%	69%	[0.73]	[0.54]	[0.67]	[0.75]	Equity Volatility (VIXM)	11	7	3	3

# KISS Portfolio Construction Process: Highest And Lowest Expected Sharpe Ratios By GRID Regime

## GOLDILOCKS

**Top 3 Equity Factors**  
 Mid Caps (VO)  
 Dividend Compounders (SPHD)  
 Small Caps (IWM)

**Bottom 3 Equity Factors**  
 Growth (IWF)  
 Beta (SPY)  
 Quality (QUAL)

**Top 3 Equity Sectors**  
 Real Estate (XLRE)  
 Consumer Discretionary (XLY)  
 Industrials (XLI)

**Bottom 3 Equity Sectors**  
 Utilities (XLU)  
 Communication Services (XLC)  
 Energy (XLE)

**Top 3 Global Equity Markets**  
 Emerging Markets (EEM)  
 India (INDA)  
 China (FXI)

**Bottom 3 Global Equity Markets**  
 Brazil (EWZ)  
 United Kingdom (EWU)  
 Japan (DXJ)

**Top 5 Fixed Income Factors**  
 Convertibles (CWB)  
 Leveraged Loans (BKLN)  
 High Yield Credit (HYG)  
 Preferreds (PFF)  
 Emerging Market USD Bonds (EMB)

**Bottom 5 Fixed Income Factors**  
 25+ Year Treasuries (TLT)  
 5-10yr Treasuries (IEF)  
 5-10yr TIPS (TIP)  
 0-5yr TIPS (STIP)  
 Emerging Market Local Currency Bonds (EMLC)

**Top 3 Macro Factors**  
 Bitcoin (BITO)  
 Industrial Metals (DBB)  
 Commodities (DBC)

**Bottom 3 Macro Factors**  
 Equity Volatility (VIXM)  
 US Dollar (UUP)  
 Interest Rate Volatility (PFIX)

## REFLATION

**Top 3 Equity Factors**  
 Mid Caps (VO)  
 Momentum (MTUM)  
 Mega Cap Growth (QQQ)

**Bottom 3 Equity Factors**  
 Low Beta (SPLV)  
 Dividend Compounders (SPHD)  
 Value (IWD)

**Top 3 Equity Sectors**  
 Technology (XLK)  
 Industrials (XLI)  
 Consumer Discretionary (XLY)

**Bottom 3 Equity Sectors**  
 Consumer Staples (XLP)  
 Communication Services (XLC)  
 Utilities (XLU)

**Top 3 Global Equity Markets**  
 Emerging Markets (EEM)  
 Japan (DXJ)  
 India (INDA)

**Bottom 3 Global Equity Markets**  
 China (FXI)  
 Brazil (EWZ)  
 United Kingdom (EWU)

**Top 5 Fixed Income Factors**  
 Leveraged Loans (BKLN)  
 Convertibles (CWB)  
 High Yield Credit (HYG)  
 0-5yr TIPS (STIP)  
 BDCs (BIZD)

**Bottom 5 Fixed Income Factors**  
 25+ Year Treasuries (TLT)  
 5-10yr Treasuries (IEF)  
 Barclays Agg (AGG)  
 Investment Grade Credit (LQD)  
 MBS (MBB)

**Top 3 Macro Factors**  
 Bitcoin (BITO)  
 Commodities (DBC)  
 Energy (USO)

**Bottom 3 Macro Factors**  
 US Dollar (UUP)  
 Agriculture (DBA)  
 Inverse US Dollar (UDN)

## INFLATION

**Top 3 Equity Factors**  
 Mega Cap Growth (QQQ)  
 Dividend Compounders (SPHD)  
 Momentum (MTUM)

**Bottom 3 Equity Factors**  
 Beta (SPY)  
 High Beta (SPHD)  
 Value (IWD)

**Top 3 Equity Sectors**  
 Utilities (XLU)  
 Real Estate (XLRE)  
 Health Care (XLV)

**Bottom 3 Equity Sectors**  
 Materials (XLB)  
 Financials (XLF)  
 Communication Services (XLC)

**Top 3 Global Equity Markets**  
 India (INDA)  
 Brazil (EWZ)  
 Eurozone (EZU)

**Bottom 3 Global Equity Markets**  
 China (FXI)  
 Emerging Markets (EEM)  
 United Kingdom (EWU)

**Top 5 Fixed Income Factors**  
 1-3yr Treasuries (SHY)  
 0-5yr TIPS (STIP)  
 5-10yr TIPS (TIP)  
 5-10yr Treasuries (IEF)  
 25+ Year Treasuries (TLT)

**Bottom 5 Fixed Income Factors**  
 Convertibles (CWB)  
 BDCs (BIZD)  
 EM Local Currency Bonds (EMLC)  
 Preferreds (PFF)  
 Investment Grade Credit (LQD)

**Top 3 Macro Factors**  
 Bitcoin (BITO)  
 Gold (GLD)  
 Equity Volatility (VIXM)

**Bottom 3 Macro Factors**  
 Industrial Metals (DBB)  
 Inverse US Dollar (UDN)  
 Commodities (DBC)

## DEFLATION

**Top 3 Equity Factors**  
 Low Beta (SPLV)  
 Dividend Compounders (SPHD)  
 Quality (QUAL)

**Bottom 3 Equity Factors**  
 High Beta (SPHB)  
 Mega Caps (OEF)  
 Value (IWD)

**Top 3 Equity Sectors**  
 Health Care (XLV)  
 Consumer Staples (XLP)  
 Energy (XLE)

**Bottom 3 Equity Sectors**  
 Real Estate (XLRE)  
 Financials (XLF)  
 Communication Services (XLC)

**Top 3 Global Equity Markets**  
 United Kingdom (EWU)  
 China (FXI)  
 India (INDA)

**Bottom 3 Global Equity Markets**  
 Brazil (EWZ)  
 Japan (DXJ)  
 Emerging Markets (EEM)

**Top 5 Fixed Income Factors**  
 1-3yr Treasuries (SHY)  
 5-10yr Treasuries (IEF)  
 Barclays Agg (AGG)  
 MBS (MBB)  
 Investment Grade Credit (LQD)

**Bottom 5 Fixed Income Factors**  
 Preferreds (PFF)  
 BDCs (BIZD)  
 EM Local Currency Bonds (EMLC)  
 High Yield Credit (HYG)  
 Leveraged Loans (BKLN)

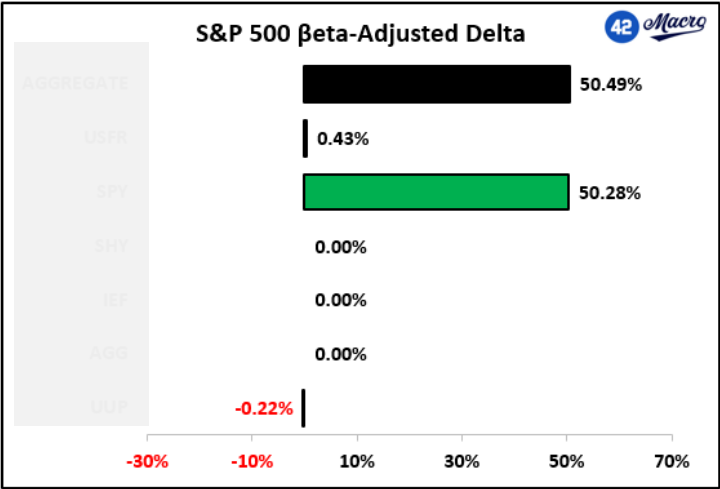
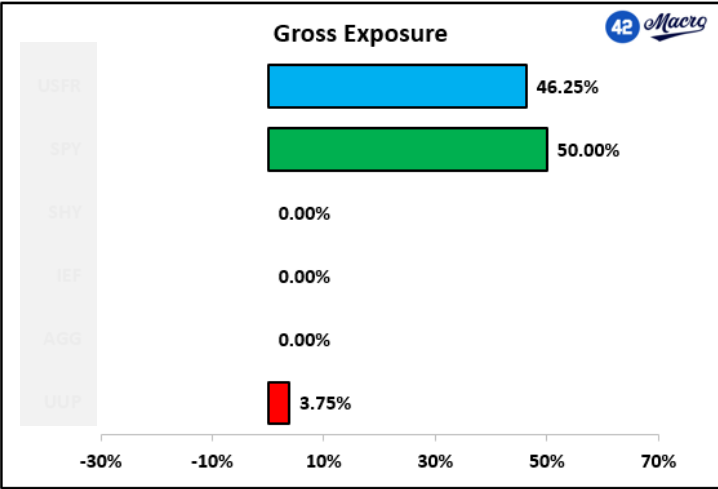
**Top 3 Macro Factors**  
 US Dollar (UUP)  
 Gold (GLD)  
 Equity Volatility (VIXM)

**Bottom 3 Macro Factors**  
 Bitcoin (BITO)  
 Inverse US Dollar (UDN)  
 Commodities (DBC)

# Our Current KISS Portfolio Construction

42 Macro KISS Portfolio Construction: 7/10/23

Liquidity (Percent of MAX Exposure of 100%): 46%		Weather Model Target Exposure	VAMS Actual Exposure	Δ Since Prior Update	6mo Beta to S&P 500
USFR		n/a	46.25%		0.0
Equities (Percent of MAX Exposure of 60%): 83%		Weather Model Target Exposure	VAMS Actual Exposure	Δ Since Prior Update	6mo Beta to S&P 500
SPY		50.00%	50.00%		1.0
Fixed Income (Percent of MAX Exposure of 30%): 0%		Weather Model Target Exposure	VAMS Actual Exposure	Δ Since Prior Update	6mo Beta to S&P 500
SHY		7.50%	0.00%		-0.1
IEF		7.50%	0.00%		-0.2
AGG		7.50%	0.00%		-0.0
Macro Asset Classes (Percent of MAX Exposure of 10%): 38%		Weather Model Target Exposure	VAMS Actual Exposure	Δ Since Prior Update	6mo Beta to S&P 500
UUP		7.50%	3.75%		-0.1
Options Overlay: 0%		Premium	Margin	Delta	6mo Beta to S&P 500





# Global Liquidity Cycle Update



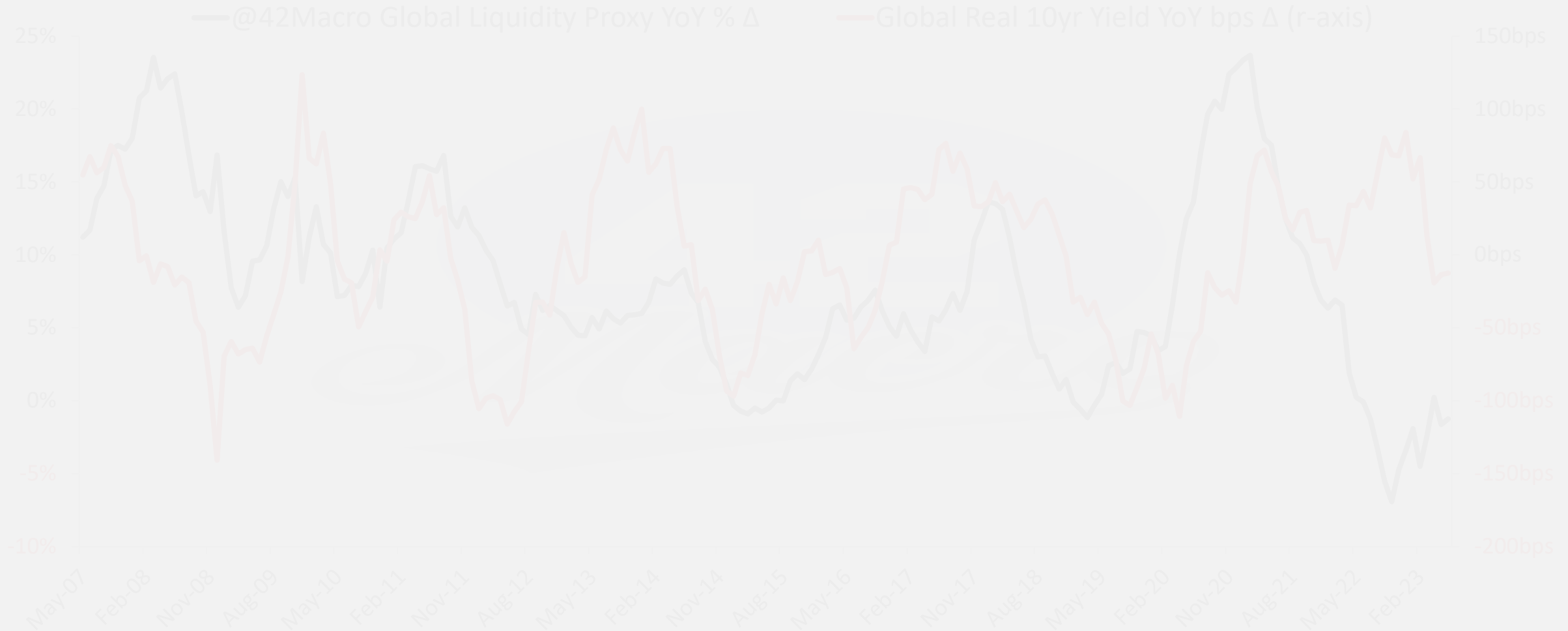
# The Global **Liquidity Cycle** And The **Market Cycle** Are Reflexively And Increasingly Linked: **Stocks**



© 42 Macro LLC. Data Source: Bloomberg.

The @42Macro Global Liquidity Proxy = Global Central Bank Balance Sheet  
+ Global Broad Money Supply + Global FX Reserves ex-Gold.

# The Global **Liquidity Cycle** And The **Market Cycle** Are Reflexively And Increasingly Linked: **Fixed Income**



© 42 Macro LLC. Data Source: Bloomberg.

The @42Macro Global Liquidity Proxy = Global Central Bank Balance Sheet  
+ Global Broad Money Supply + Global FX Reserves ex-Gold.

# The Global **Liquidity Cycle** And The **Market Cycle** Are Reflexively And Increasingly Linked: **Currencies**



© 42 Macro LLC. Data Source: Bloomberg.

The @42Macro Global Liquidity Proxy = Global Central Bank Balance Sheet  
+ Global Broad Money Supply + Global FX Reserves ex-Gold.

# The Global **Liquidity Cycle** And The **Market Cycle** Are Reflexively And Increasingly Linked: **Crypto**



© 42 Macro LLC. Data Source: Bloomberg.

The @42Macro Global Liquidity Proxy = Global Central Bank Balance Sheet  
+ Global Broad Money Supply + Global FX Reserves ex-Gold.

# The Global **Liquidity Cycle** And The **Business Cycle** Are Reflexively And Increasingly Linked: **Growth**



© 42 Macro LLC. Data Source: Bloomberg.

The @42Macro Global Liquidity Proxy = Global Central Bank Balance Sheet  
+ Global Broad Money Supply + Global FX Reserves ex-Gold.



# The Global **Liquidity Cycle** And The **Business Cycle** Are Reflexively And Increasingly Linked: **Inflation**



© 42 Macro LLC. Data Source: Bloomberg.

The @42Macro Global Liquidity Proxy = Global Central Bank Balance Sheet  
+ Global Broad Money Supply + Global FX Reserves ex-Gold.

# The Global **Liquidity Cycle** And The **Business Cycle** Are Reflexively And Increasingly Linked: **Employment**



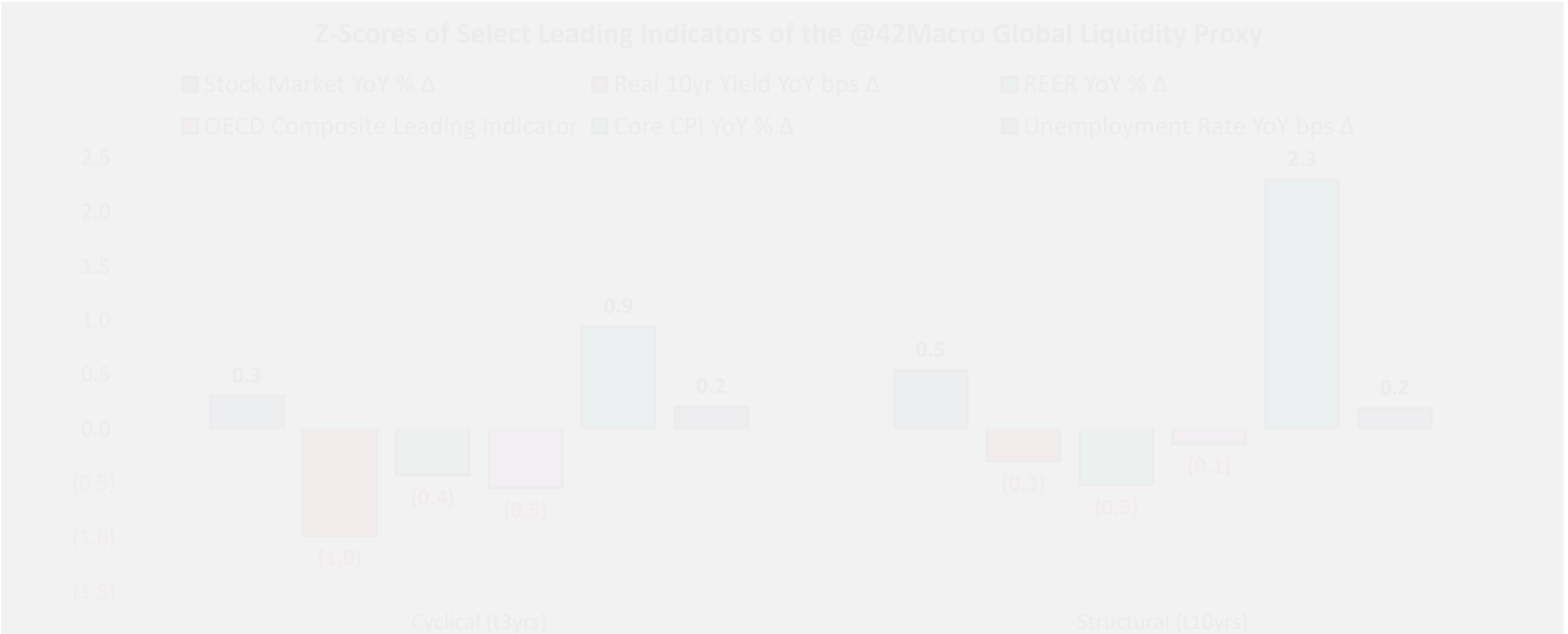
© 42 Macro LLC. Data Source: Bloomberg.

The @42Macro Global Liquidity Proxy = Global Central Bank Balance Sheet  
+ Global Broad Money Supply + Global FX Reserves ex-Gold.

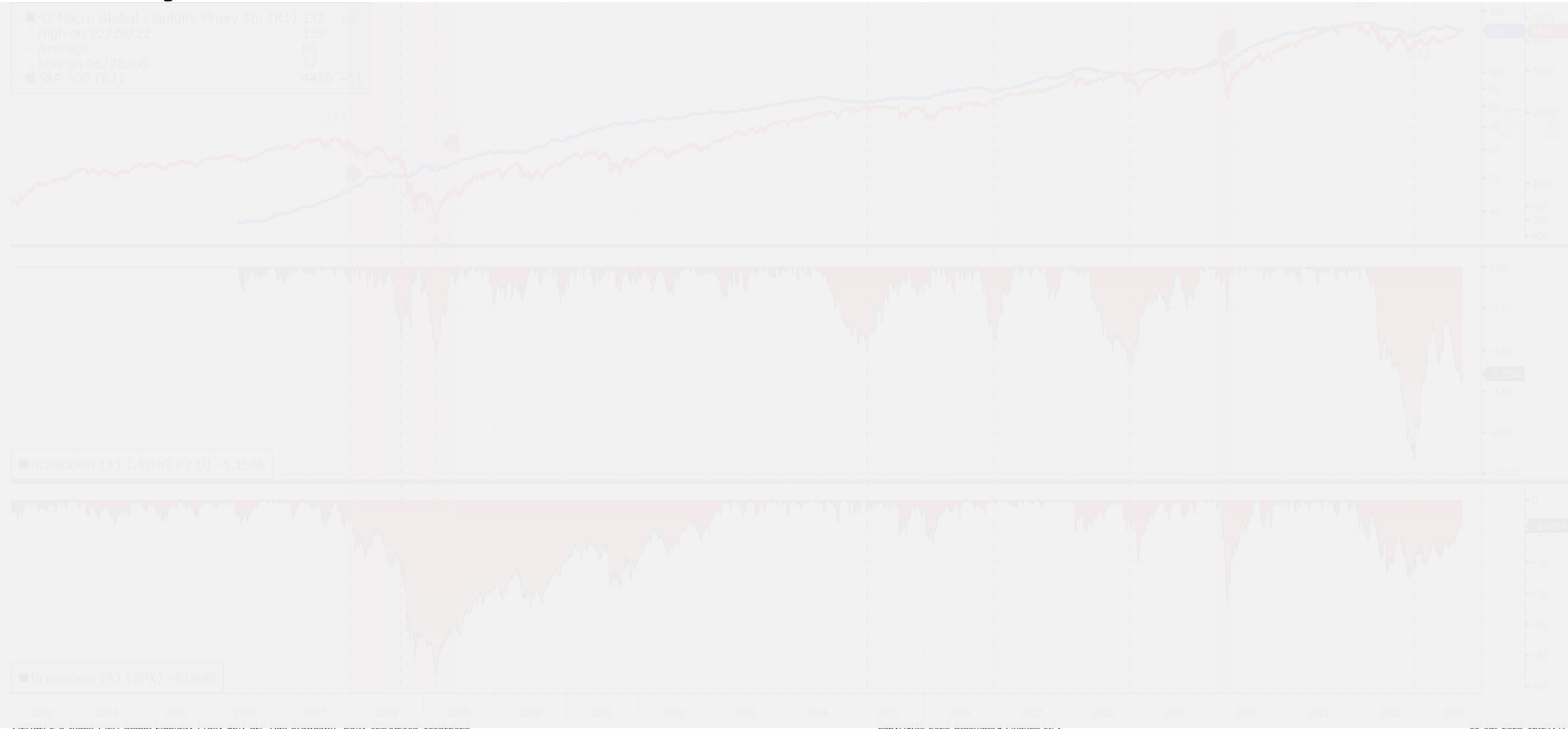
What Drives The Global Liquidity Cycle? Short Term: The US Dollar And Inflation; Medium Term: Employment And Inflation; Long Term: Growth And Interest Rates



# What Are The Drivers Of The Global Liquidity Cycle Implying Now? Short Term: Flat Liquidity; Medium Term: Falling Liquidity; Long Term: Rising Liquidity



# The Global **Liquidity Cycle** Bottomed In Late-2022, But The Recovery Has Been Nonlinear

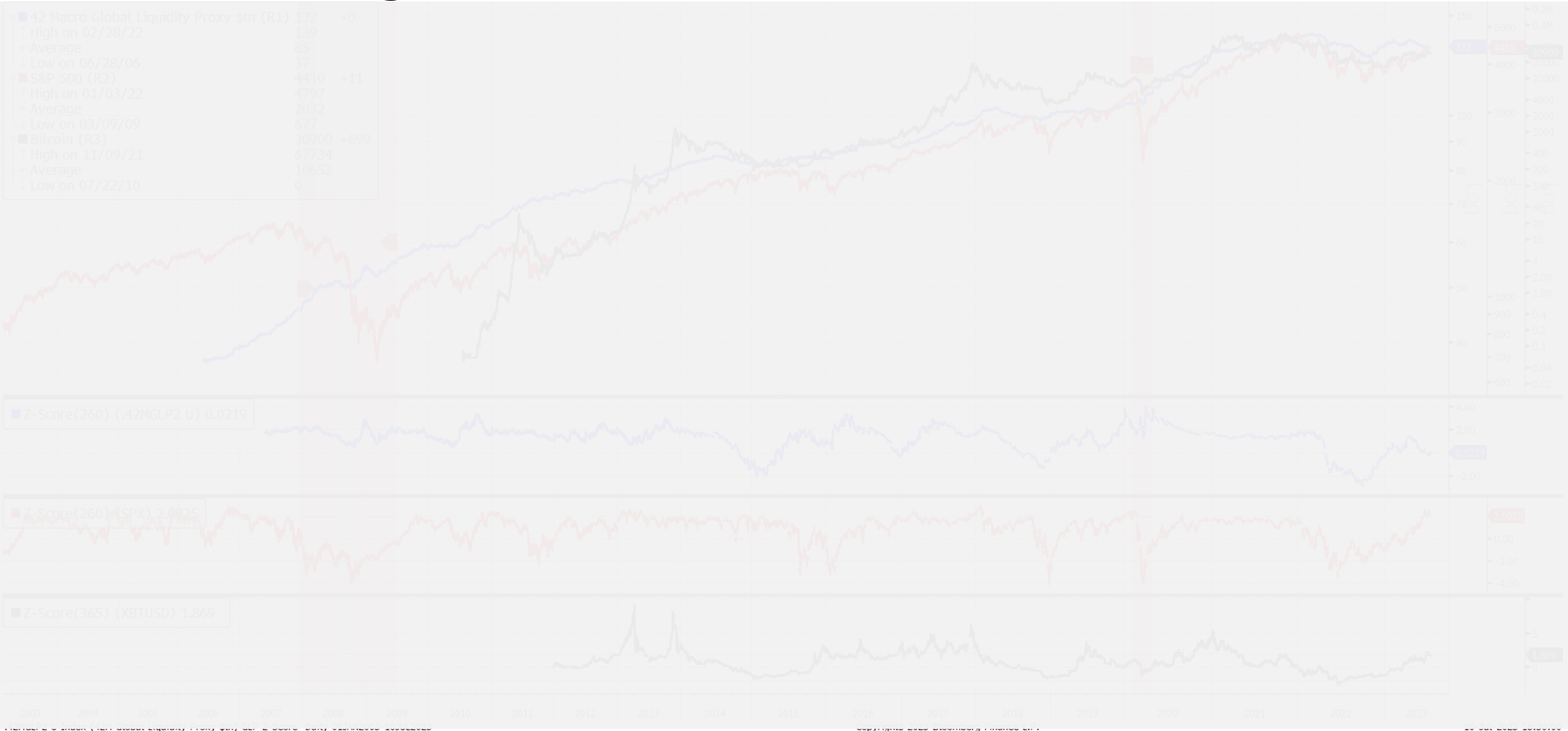


© 42 Macro LLC. Data Source: Bloomberg.

The @42Macro Global Liquidity Proxy = Global Central Bank Balance Sheet  
+ Global Broad Money Supply + Global FX Reserves ex-Gold.

Red dotted lines = GLP bottomed before SPX trough. Green dotted lines = GLP bottomed coincident with SPX trough.

# Asset Markets Are Trading Like The Recovery In Global Liquidity Is Linear Even Though It Is Not

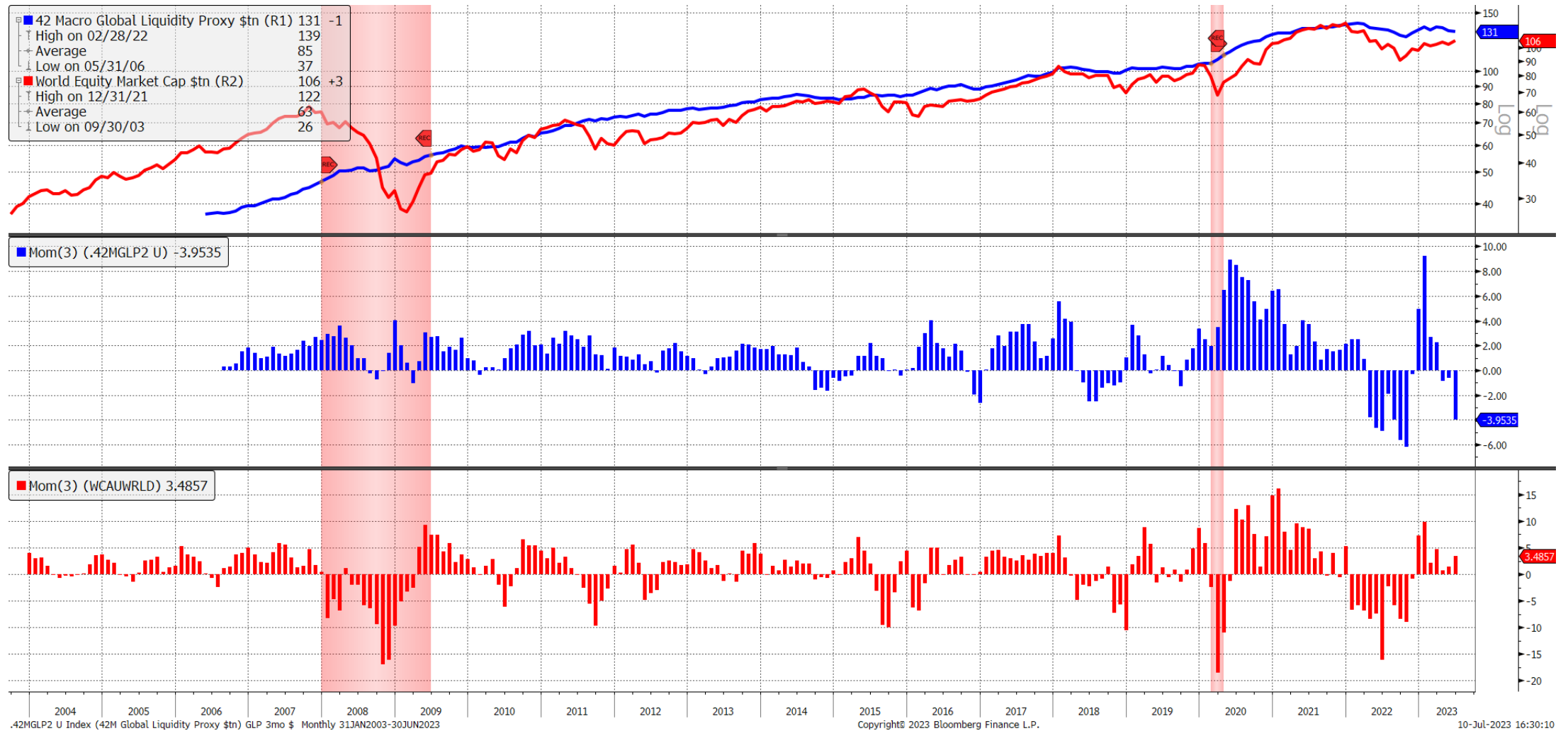


© 42 Macro LLC. Data Source: Bloomberg.

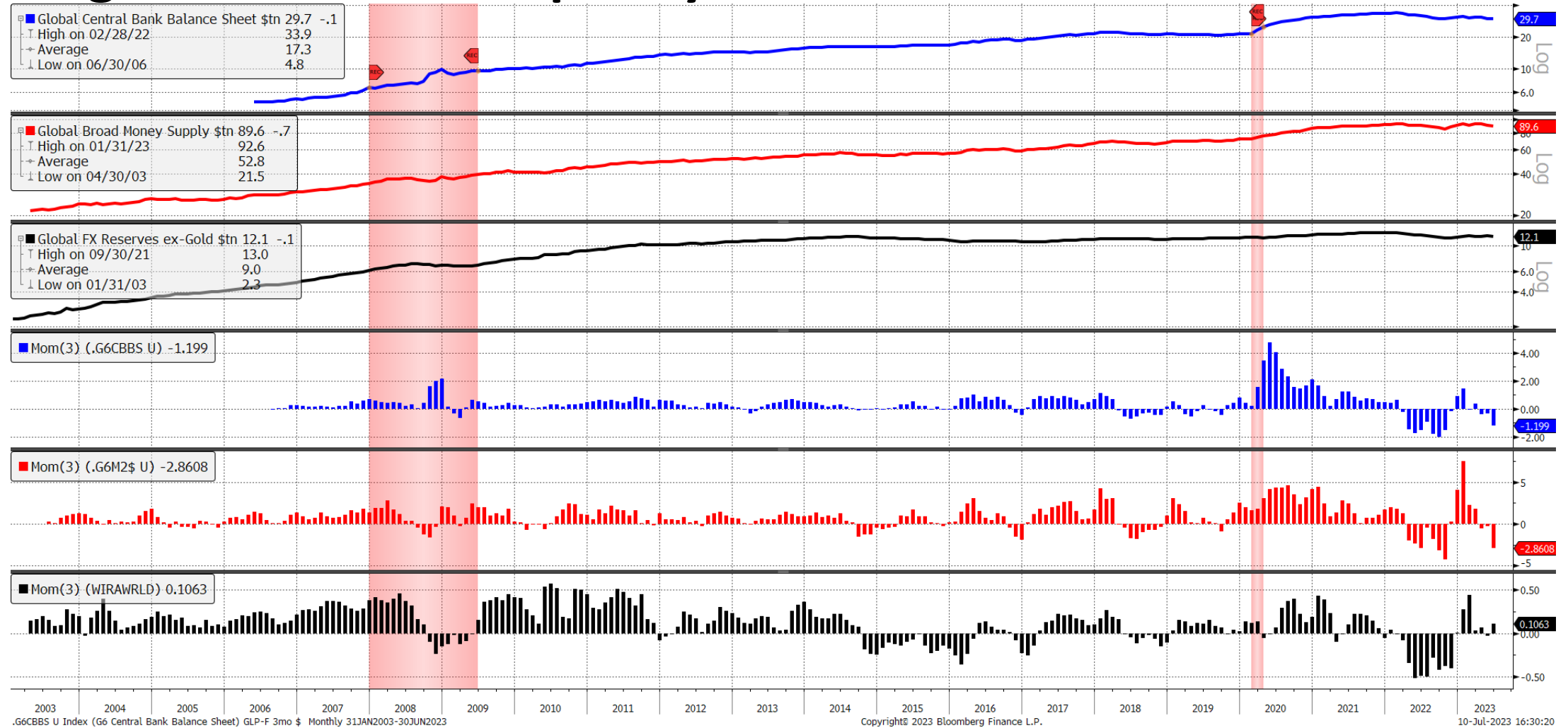
The @42Macro Global Liquidity Proxy = Global Central Bank Balance Sheet  
+ Global Broad Money Supply + Global FX Reserves ex-Gold.



# The Global Liquidity Impulse Is Currently Deeply Negative



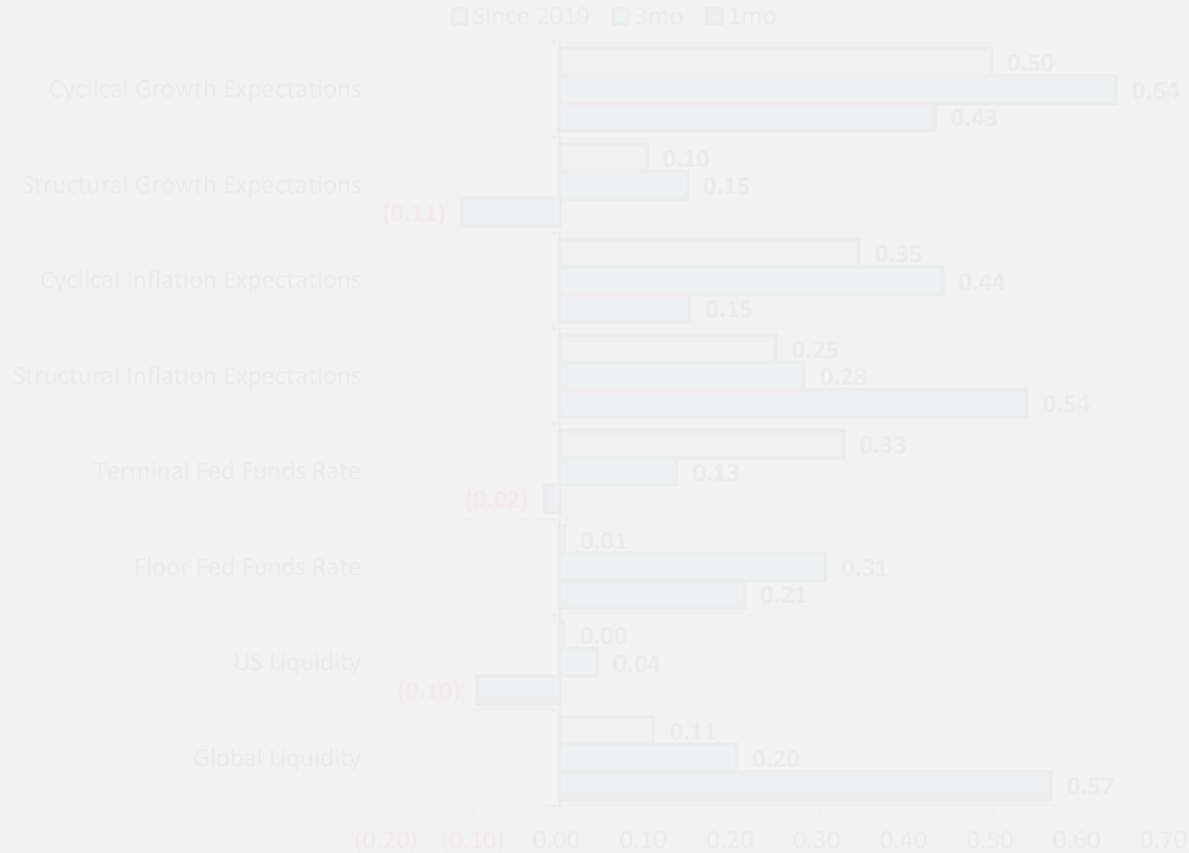
# Why? Declining Public Sector Liquidity Is Being Exacerbated By Falling Private Sector Liquidity



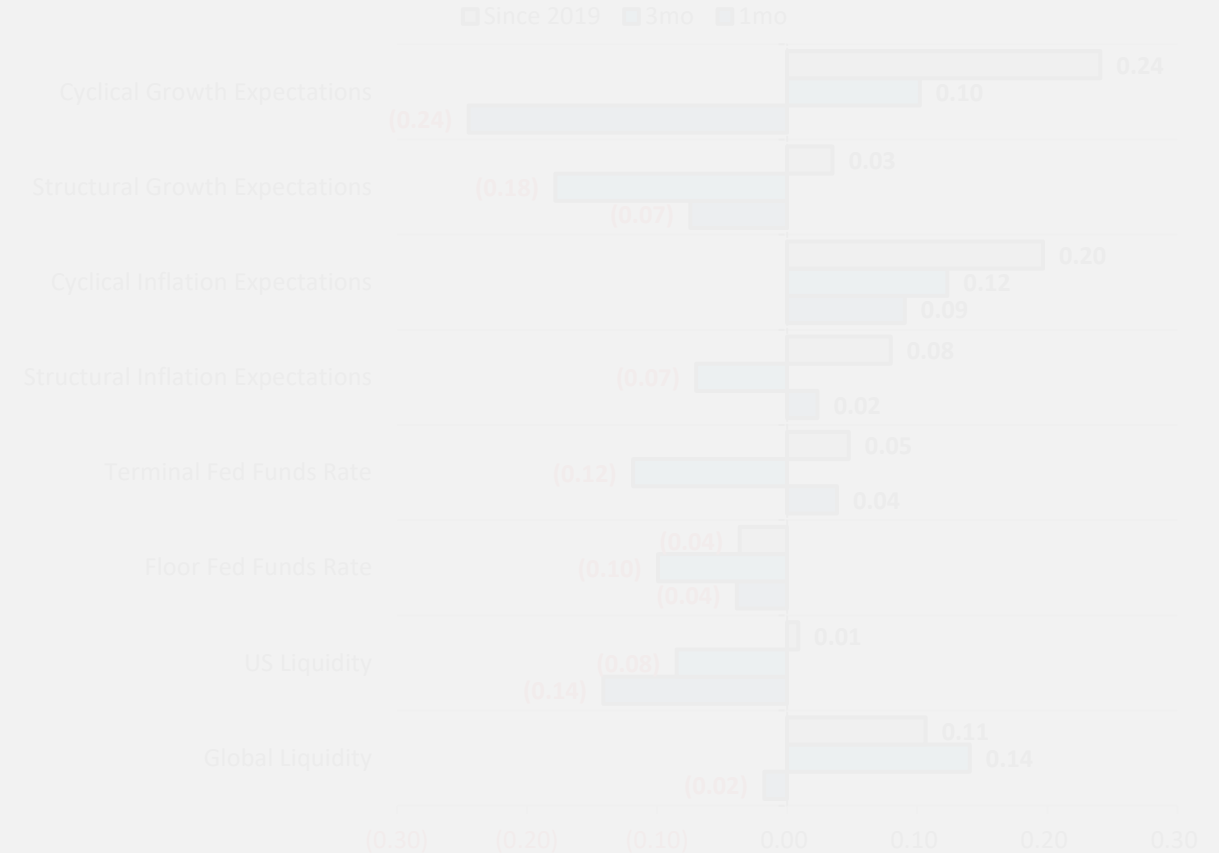
© 42 Macro LLC. Data Source: Bloomberg. The Global Central Bank Balance Sheet and Global Broad Money Supply are aggregated from the G6 Economies (US, Eurozone, UK, Japan, China, and Switzerland). These six economies account for 90+ percent of total assets on global central bank balance sheets and 90+ percent of global M1 money supply.

# Liquidity Is Not The Key Driver Of Stocks Right Now, But It Is Among The Key Drivers Of Digital Assets – Hence The Recent Divergence

What's Driving the Market?: 1-Day Log Price Change Correlations b/tw S&P 500 and Various Macro Factors



What's Driving the Market?: 1-Day Log Price Change Correlations b/tw Bitcoin and Various Macro Factors



© 42 Macro LLC. Data Source: Bloomberg. Cyclical Growth Expectations proxied by the High Beta/Low Beta Ratio. Structural Growth Expectations proxied by the 10yr TIPS Yield. Cyclical Inflation Expectations proxied by the CRB Index. 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.

# Even If The Global Liquidity Cycle Stages A Linear Recovery From Here, That Does Not Mean Investors Will Be Spared From Phase 2

Global Liquidity Cycle Upturn Context						Cumulative Performance During Global Liquidity Cycle Upturn						Max Drawdown During Global Liquidity Cycle Upturn					
Global Liquidity Cycle Bottoms	Months From Previous Bottom	Years From Previous Bottom	Global Liquidity Cycle Peaks	Months From Cycle Trough	Years From Cycle Trough	S&P 500	NASDAQ 100	10yr Treasury Note	US Dollar Index (DXY)	Bitcoin	Ethereum	S&P 500	NASDAQ 100	10yr Treasury Note	US Dollar Index (DXY)	Bitcoin	Ethereum
Mar-09	n/a	n/a	Aug-11	29	2.4	53%	81%	5%	-0%	10,150%	n/a	-18%	-16%	-8%	-18%	-74%	n/a
Aug-12	41	3.4	Jul-14	23	1.9	37%	40%	-8%	0%	5,671%	n/a	-8%	-12%	-8%	-6%	-70%	n/a
Mar-15	31	2.6	Jan-18	34	2.8	37%	60%	-6%	-9%	3,981%	n/a	-14%	-16%	-9%	-14%	-48%	n/a
Mar-19	48	4.0	Feb-21	22	1.8	33%	73%	8%	-7%	1,006%	905%	-34%	-28%	-5%	-13%	-61%	-67%
Oct-22	43	3.6	?	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MEDIAN	42	3.5	n/a	26	2.2	37%	67%	-1%	-4%	4,826%	905%	-16%	-16%	-8%	-14%	-66%	-67%
Data Source: Bloomberg. Intellectual Property of 42 Macro LLC. The Global Liquidity Cycle is derived from observed peaks and troughs in the @42Macro Global Liquidity Proxy, which is the sum of the Global Central Bank Balance Sheet, Global Broad Money Supply, and Global FX Reserves ex-Gold.																	

# @42Macro Global Liquidity Cycle Monitor

@42Macro Global Liquidity Cycle Monitor (7/10/23)	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*								
	Delta	Trend	Level	Delta	Trend*	Level	Delta	Trend	Level	Delta	Trend	Level	Delta	Trend	Level	Delta	Trend	Level	Delta	Trend	Level	Delta	Trend	Level	Delta	Trend	Level	Delta	Trend	Level	Delta	Trend	Level	Stocks	Bonds	FX						
Global	⬆️	(0.0)	1.8%	⬇️	0.0	52.7	⬇️	(1.4)	4.8%	⬇️	(0.5)	(7)	⬇️	1.3	6.5%	⬇️	2.4	6.9%	⬇️	(0.6)	(12)	⬇️	1.4	\$132.0	⬆️	3.9	4.00%	⬆️	(0.3)	-4.8%	⬇️	(1.0)	-0.7%	⬆️	1.5	107	n/a	n/a	n/a			
China	⬆️	0.2	8.8%	⬇️	(0.1)	52.3	⬇️	(0.2)	5.2%	⬇️	(1.6)	(85)	⬇️	(1.9)	0.0%	⬇️	(1.9)	0.4%	⬆️	(2.5)	(66)	⬇️	1.1	\$47.9	➡️	(1.1)	3.65%	⬇️	(0.8)	-4.7%	⬇️	0.7	2.2%	⬇️	(1.4)	94	n/a	n/a	n/a			
United States	⬇️	(0.1)	2.0%	⬆️	(1.0)	53.0	⬆️	(0.8)	3.6%	⬆️	1.1	71	⬇️	0.6	4.0%	⬇️	1.8	4.6%	⬇️	(0.4)	(14)	⬇️	1.4	\$29.2	⬆️	3.2	5.25%	⬇️	(0.6)	-8.0%	⬆️	(1.6)	-3.4%	⬆️	1.5	107	n/a	n/a	n/a			
Eurozone	➡️	(0.2)	-0.4%	⬇️	(0.7)	49.9	⬇️	(1.4)	6.5%	⬇️	(2.1)	(135)	⬇️	1.3	5.5%	⬇️	2.9	5.4%	⬇️	(0.3)	2	⬇️	1.1	\$24.7	⬆️	5.0	3.50%	⬇️	(0.5)	-3.6%	⬆️	(2.4)	-0.2%	⬆️	0.4	101	n/a	n/a	n/a			
Japan	⬆️	0.3	2.7%	⬇️	1.0	52.1	➡️	(0.7)	2.6%	⬇️	(0.1)	0	⬇️	1.8	3.2%	⬆️	1.9	3.2%	⬇️	(0.9)	(10)	⬇️	0.5	\$15.1	➡️	(0.6)	-0.10%	⬇️	(0.6)	-6.7%	⬇️	(0.9)	1.7%	⬇️	(2.3)	76	n/a	n/a	n/a			
United Kingdom	➡️	(0.1)	0.4%	⬆️	(0.3)	52.8	⬆️	(0.9)	3.8%	⬆️	0.8	61	⬇️	2.1	8.7%	⬆️	2.9	7.1%	⬆️	1.4	66	⬆️	1.2	\$6.1	⬆️	4.5	5.00%	⬇️	(0.0)	-5.3%	⬆️	1.6	-2.1%	⬆️	0.5	107	n/a	n/a	n/a			
India	⬆️	0.0	6.1%	⬆️	0.8	59.4	⬆️	0.2	8.0%	-	-	-	⬇️	(0.6)	4.3%	⬇️	(0.1)	5.1%	-	-	-	⬇️	1.4	\$3.1	➡️	0.5	6.50%	⬆️	(1.1)	-6.4%	⬆️	(0.5)	-2.0%	⬆️	0.0	97	n/a	n/a	n/a			
Switzerland	⬆️	(0.1)	1.2%	⬇️	(1.5)	44.9	⬆️	(1.9)	2.0%	⬇️	(1.5)	(77)	⬇️	1.0	1.7%	⬇️	1.9	1.8%	⬇️	(0.8)	(26)	⬇️	0.9	\$3.0	➡️	(0.6)	-0.75%	⬇️	0.7	0.9%	⬇️	1.1	9.6%	⬆️	0.8	100	n/a	n/a	n/a			
Brazil	⬆️	0.8	7.6%	⬆️	(0.3)	51.5	⬇️	(1.0)	8.3%	-	-	-	⬇️	(0.8)	3.9%	⬇️	0.7	7.3%	-	-	-	⬆️	0.1	\$2.3	➡️	1.1	13.75%	⬇️	0.2	-6.4%	⬆️	0.1	-2.7%	⬆️	(0.6)	113	⬆️	⬆️	n/a			

Data Source: Bloomberg. Intellectual property of 42 Macro LLC. Delta = trailing 3mo Momentum. Trend = trailing 10yr Z-Score of latest value, except for the Composite PMI which is trailing 3yrs. Geographies ranked by size of @42Macro Liquidity Proxy, which 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. 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 = accelerating/decelerating GDP, rising/falling PMI, and rising/falling liquidity; Long/Short Bonds = decelerating/accelerating H-CPI, decelerating/accelerating C-CPI, and rising/falling liquidity; and Long/Short FX = rising/falling policy rate, rising/falling fiscal balance, and rising/falling current account balance.



# Modal Outcome

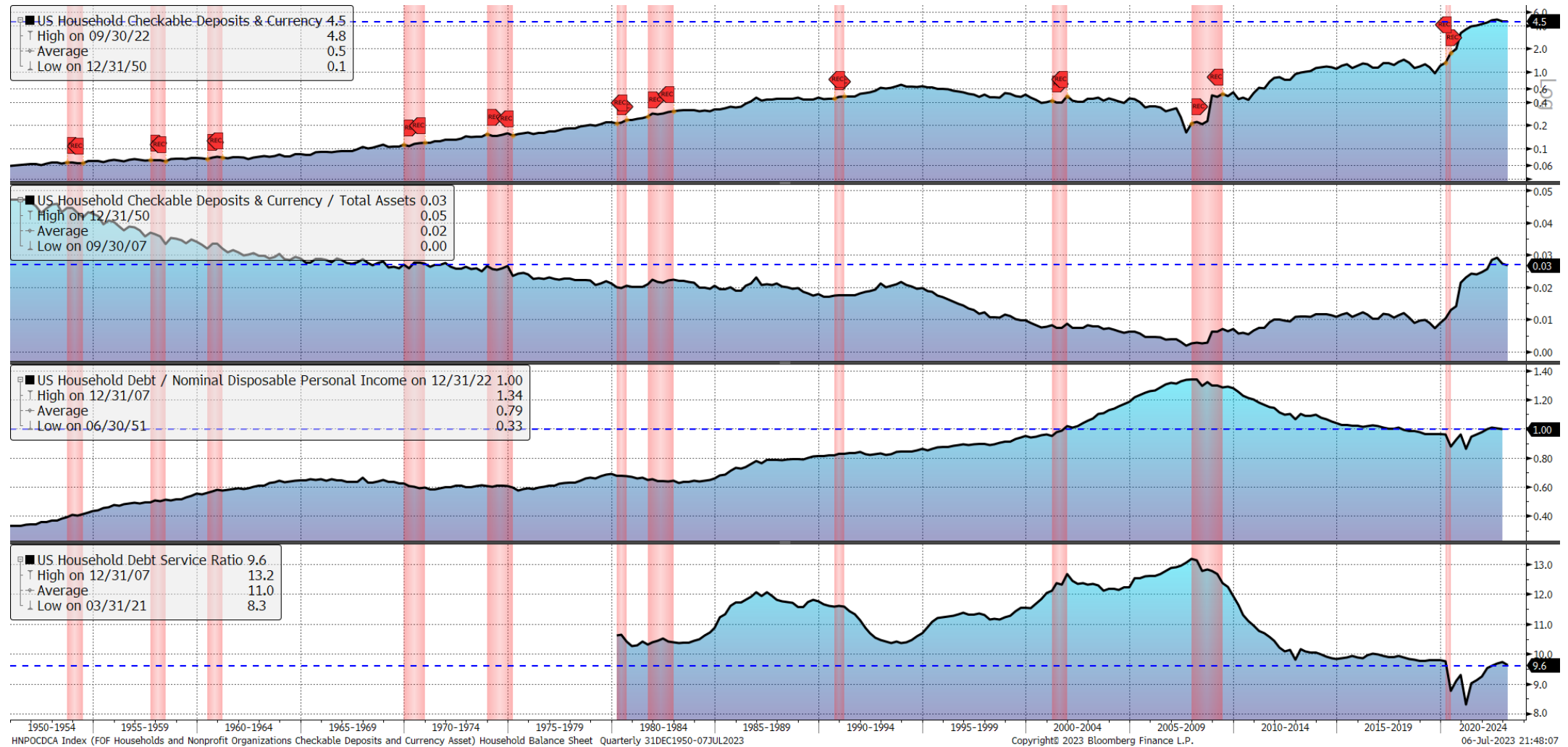




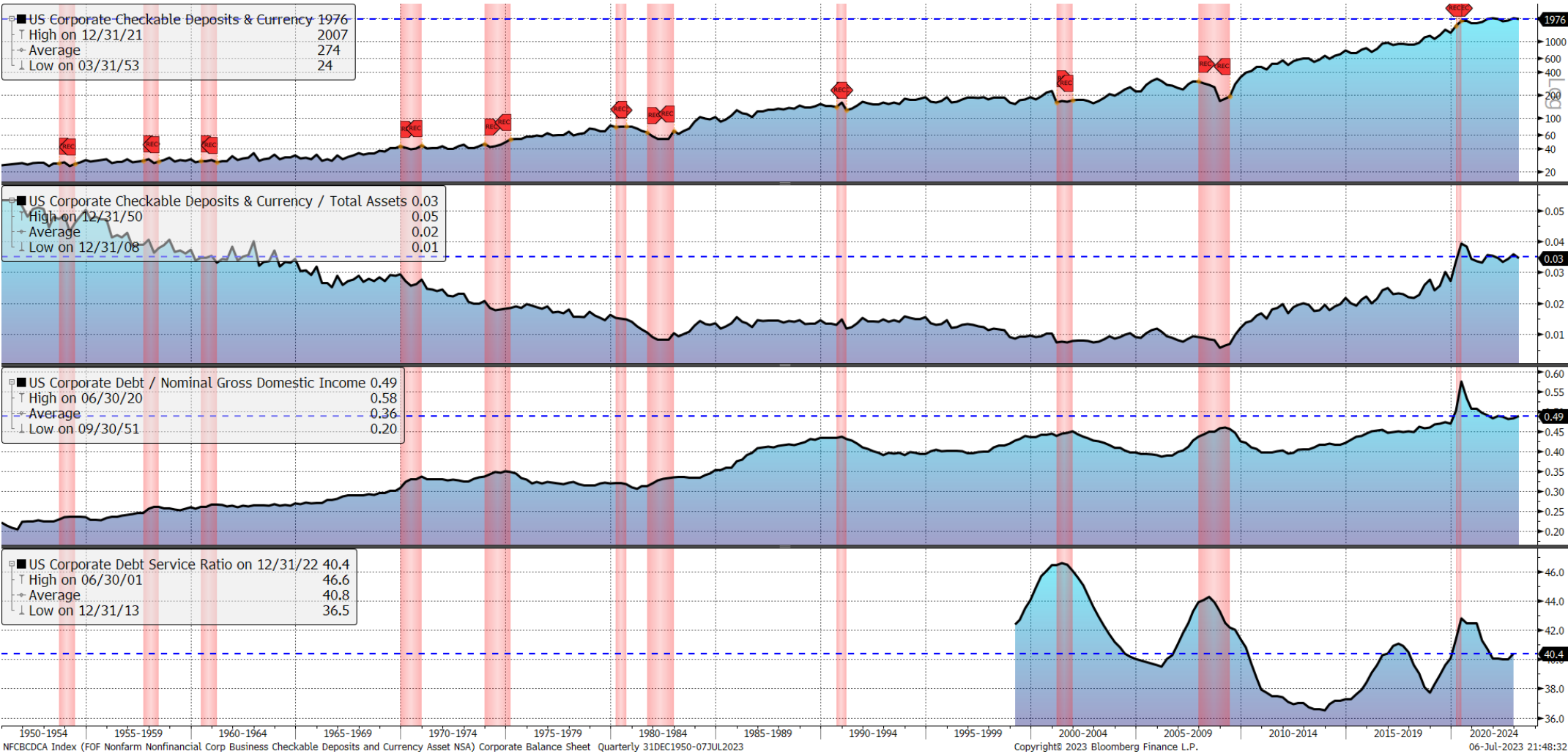
# Despite Persistent Calls For A Recession, The Resiliency Of The US Economy Persists



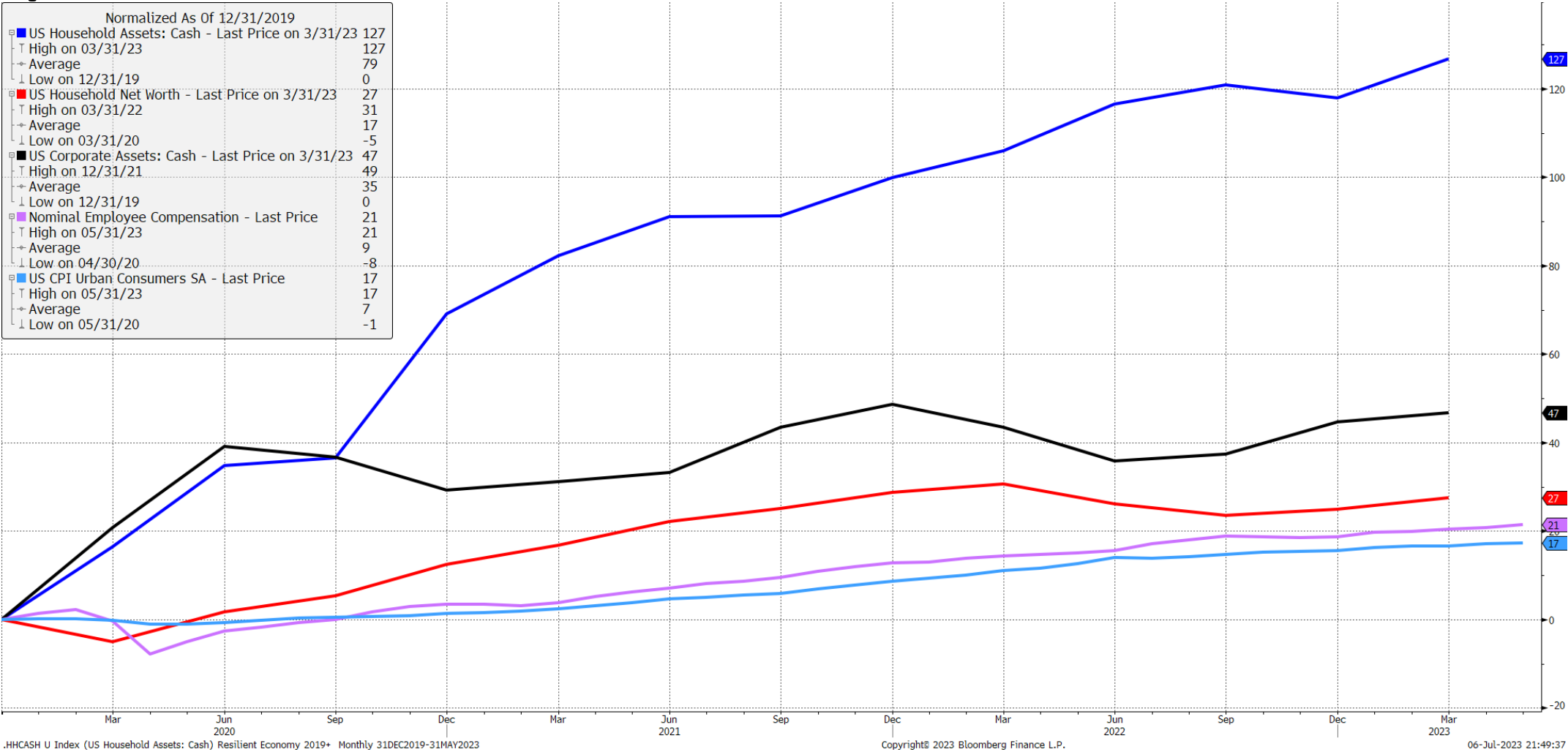
# Why? #1: Record Cash On Household Balance Sheets



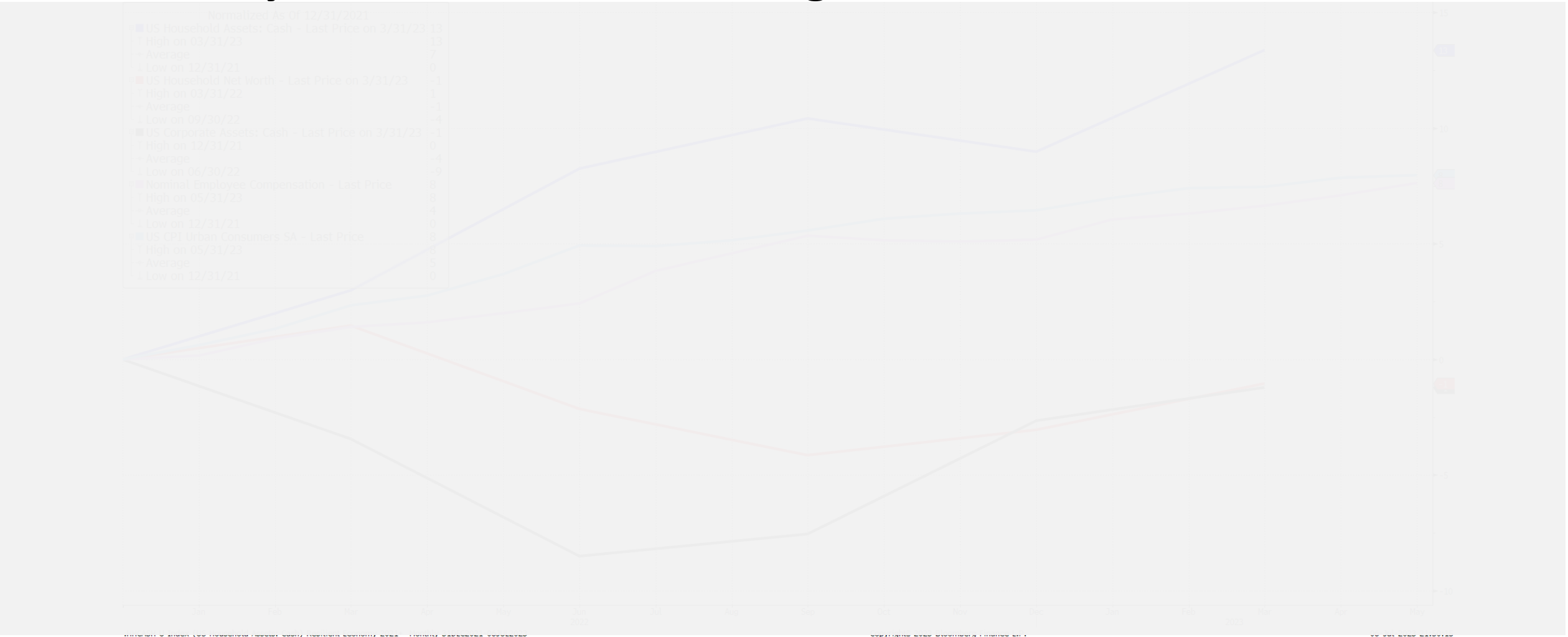
# #2: Near-Record Cash On Corporate Balance Sheets



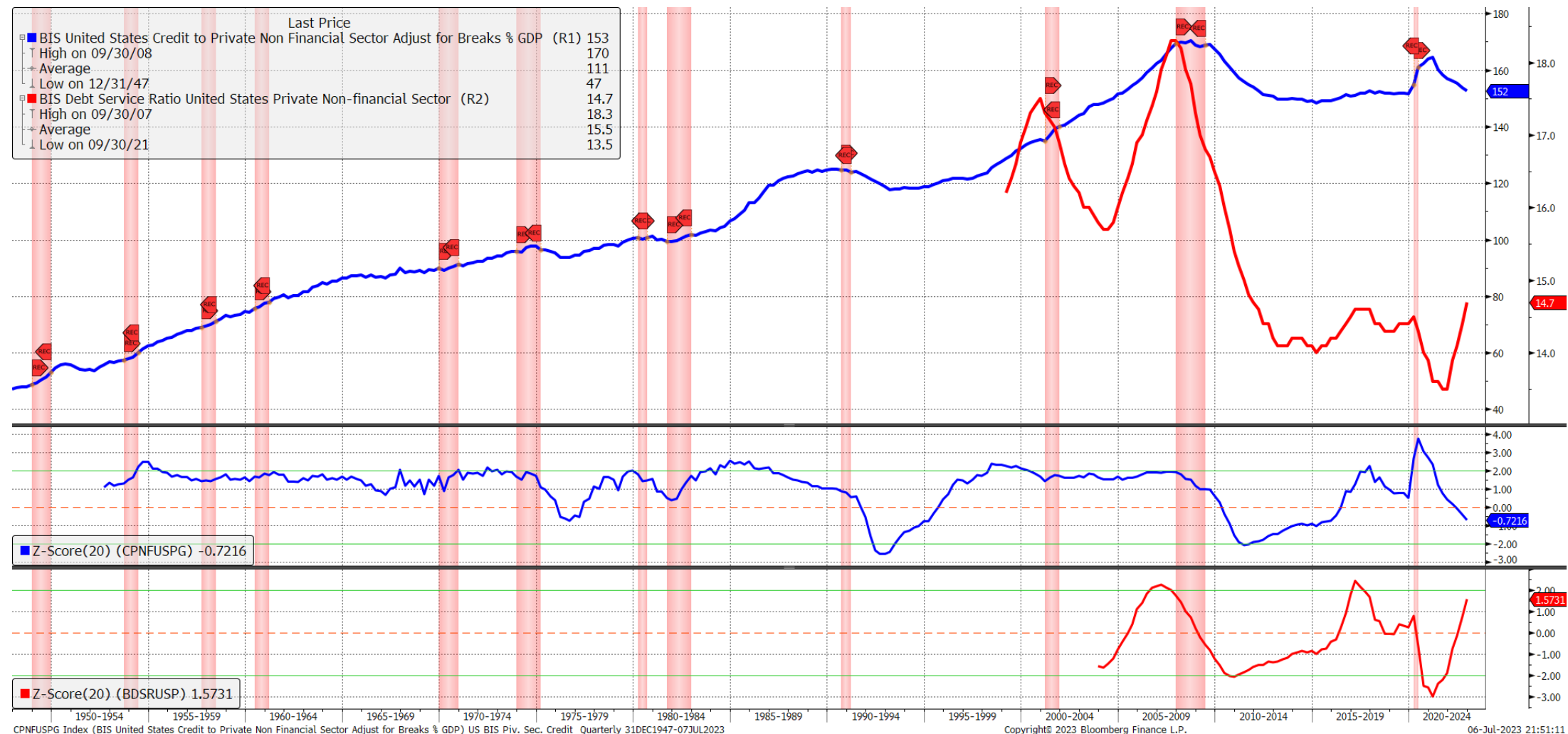
# #3: Key Measures Of Private Sector Income And Wealth Have Outpaced Inflation Since The Start Of The Pandemic



# Inflation Has Caught Up In Recent Quarters, But Has Yet To Materially Erode Household Savings

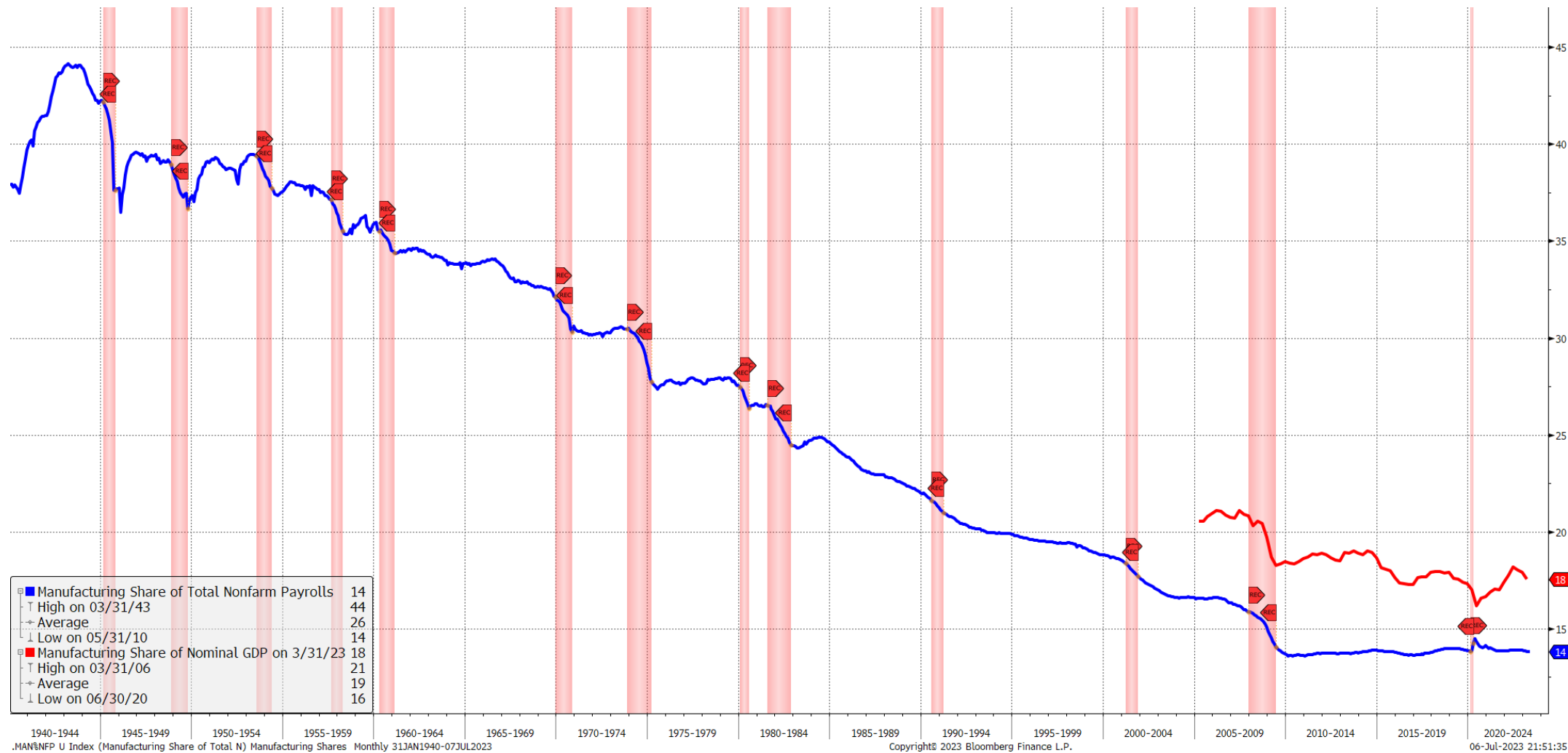


# #4: Limited Credit Cycle Vulnerabilities

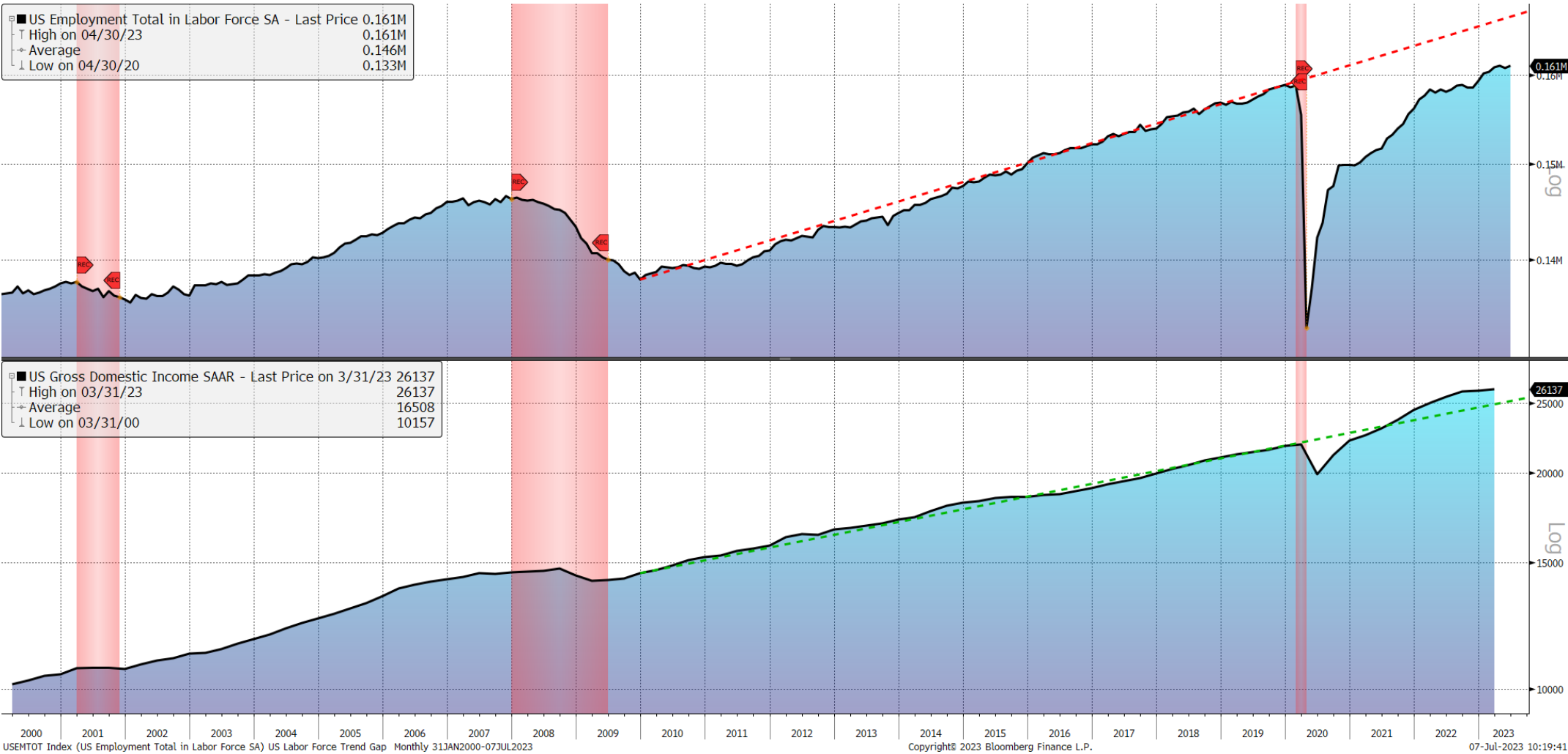




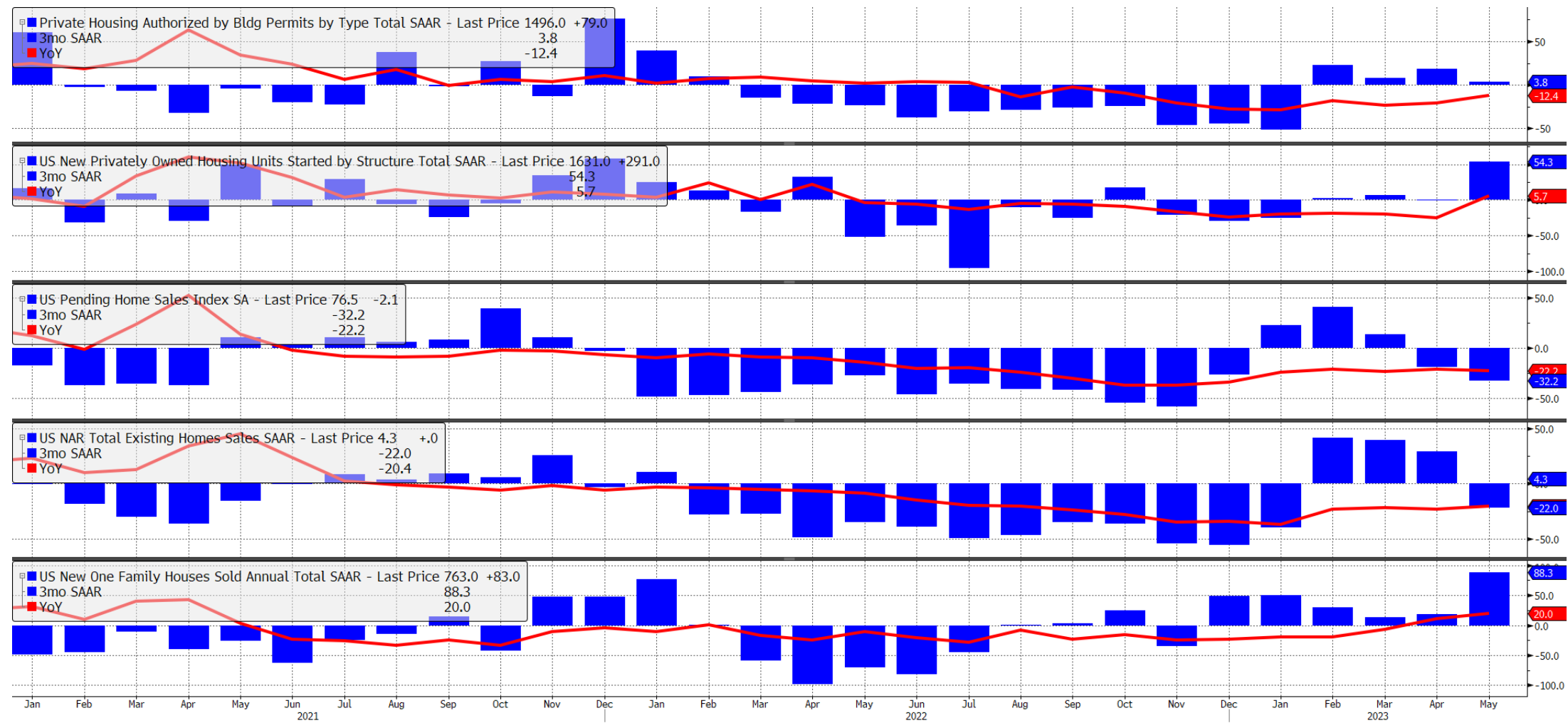
# #5: Limited Exposure To The Volatile Manufacturing Sector



# #6: Labor Hoarding

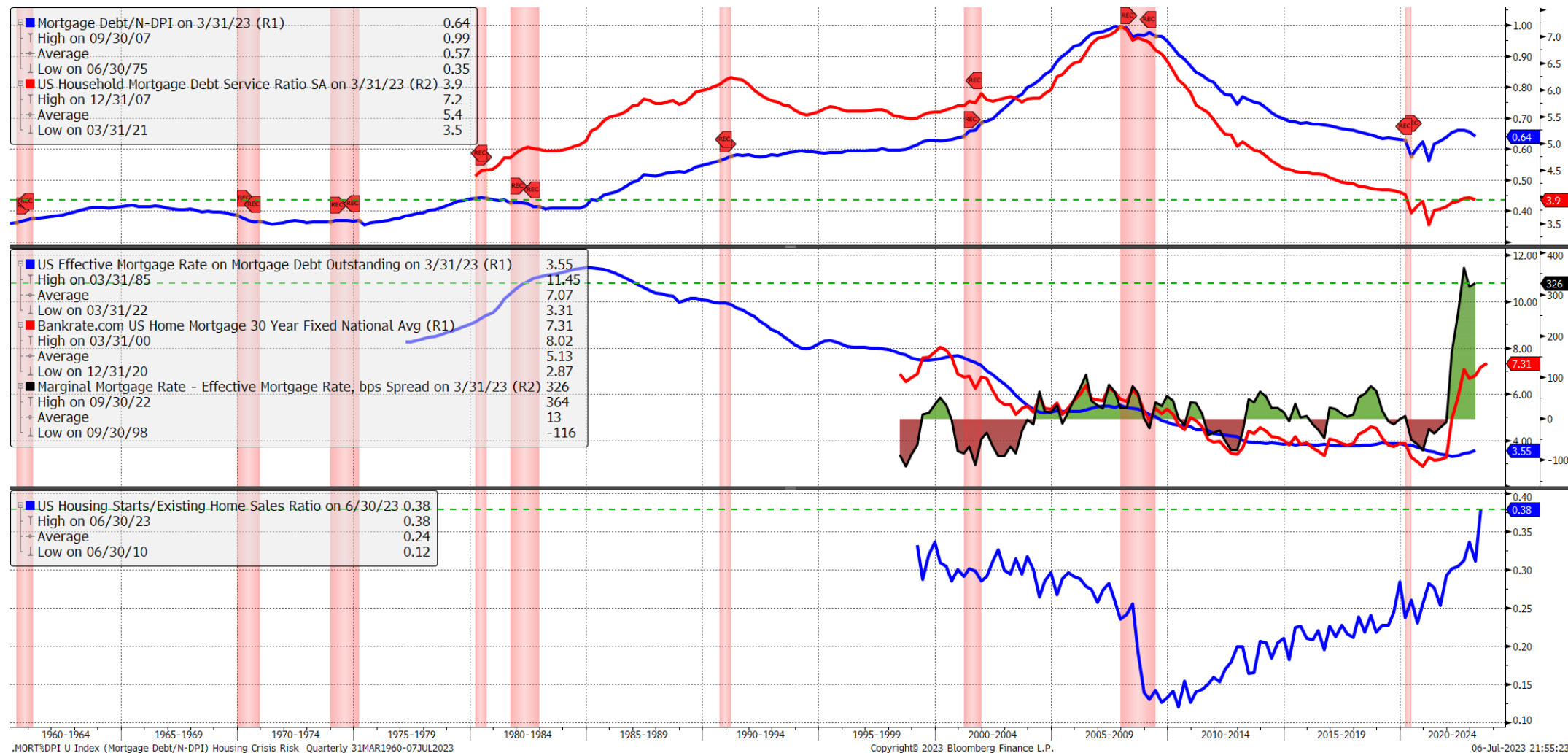


# Even The Housing Sector Is Experiencing A Cyclical Recovery



NHSPATOT Index (Private Housing Authorized by Bldg Permits by Type Total SAAR) Housing Monthly 31JAN2021-07JUL2023 Copyright© 2023 Bloomberg Finance L.P. 06-Jul-2023 21:52:17

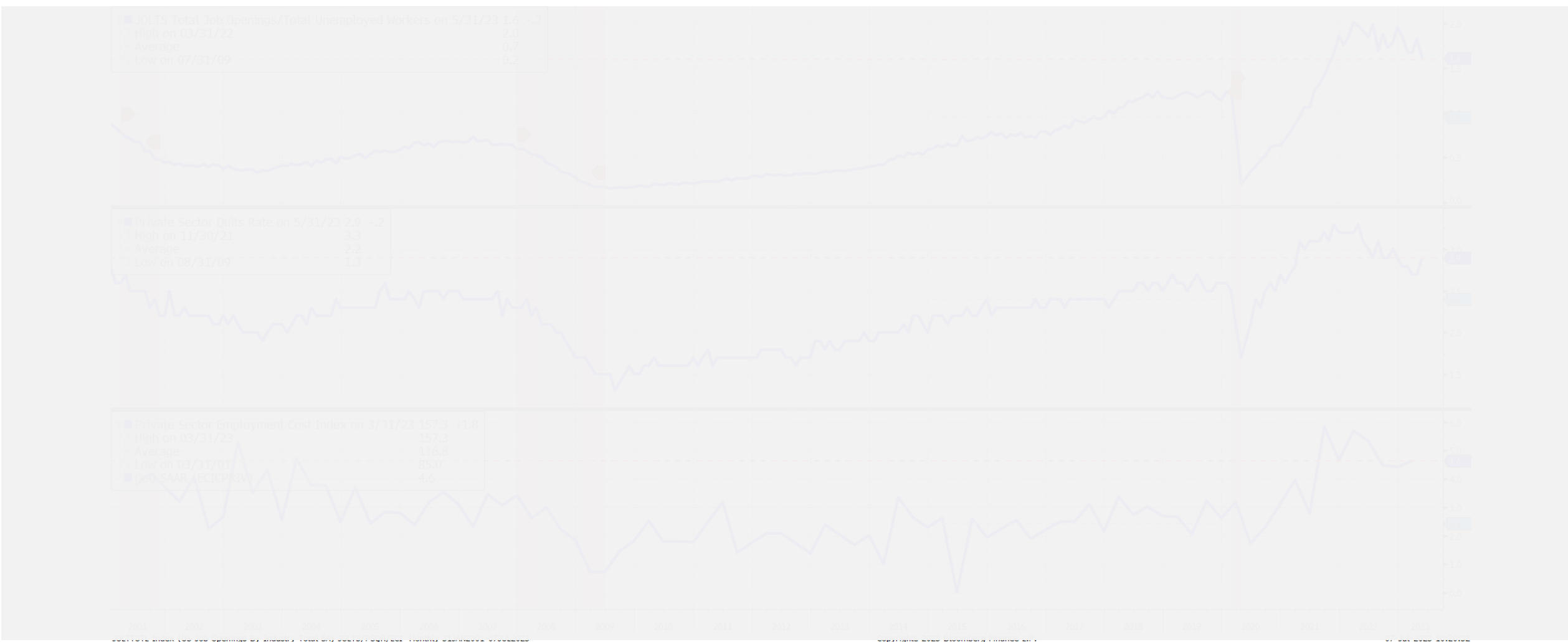
# Why? A Record Low Mortgage Debt Service Ratio + A Record Spread Between Marginal And Effective Mortgage Rates = ↑ New Home Supply



# A Resilient US Economy = A Resilient US Labor Market



# The Labor Market Remains Very Tight On A Structural Basis



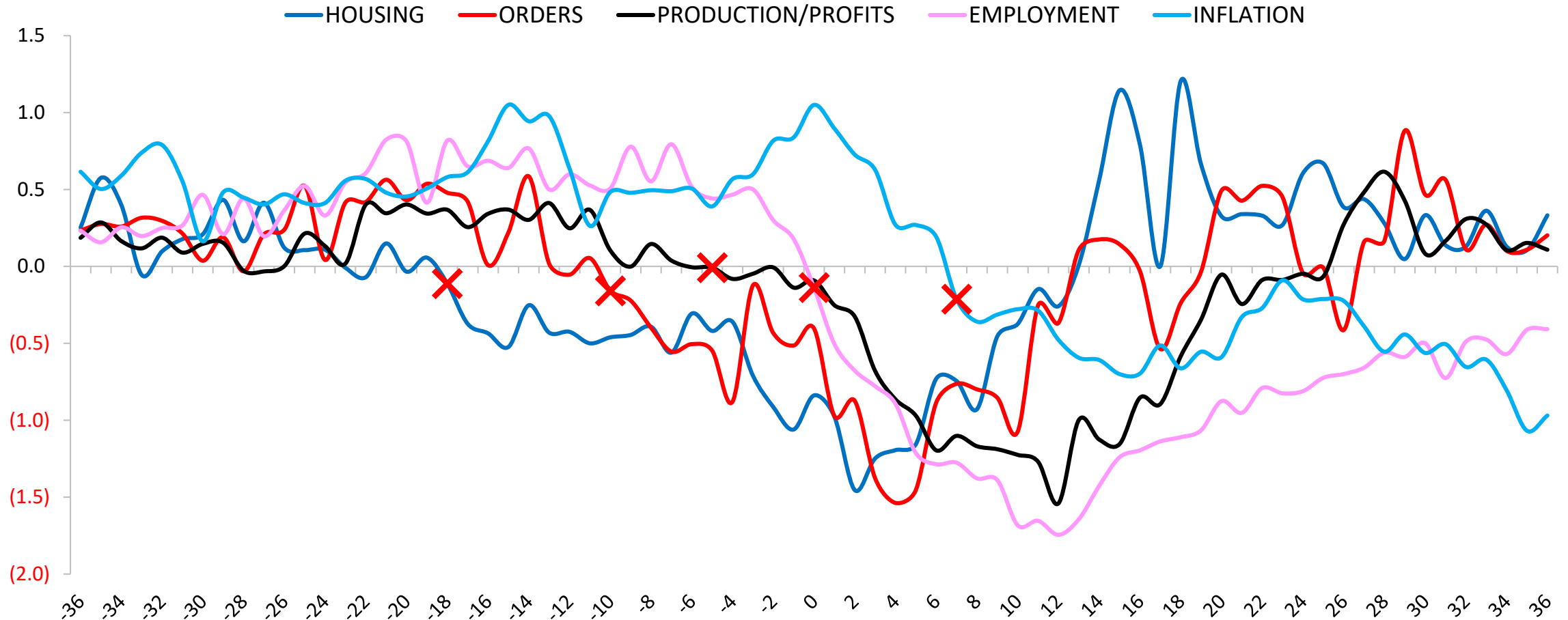


# Contrary To Perma Bear Narratives, Key Labor Market Indicators Suggest The US Economy Is Not Yet In Recession



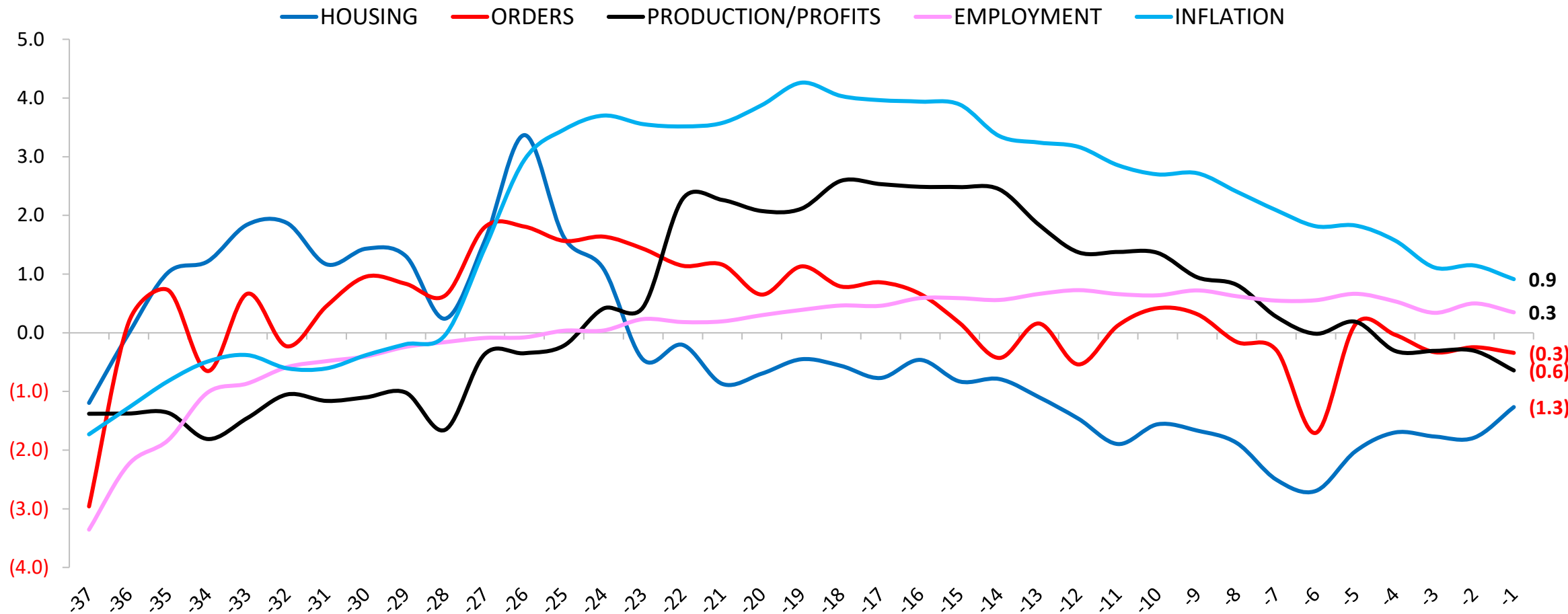
# Employment Is Always The Last Shoe To Drop Pre-Recession

Median Trailing 10yr Delta-Adjusted Z-Score of Select Indicators n-Months Before/After Recession Start

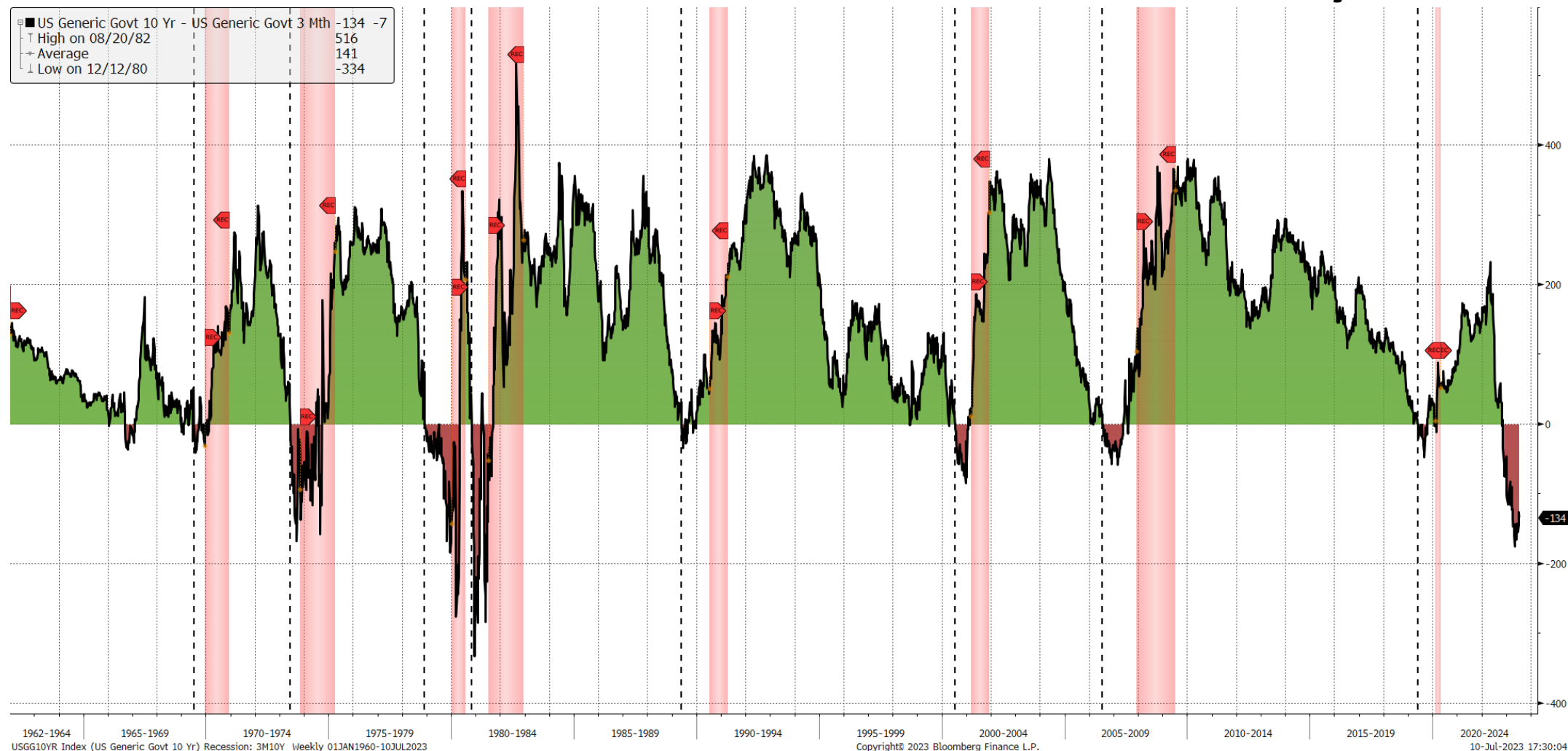


# A Recession Is Likely Given The Progression Of Other US Business Cycle Indicators

Median Trailing 10yr Delta-Adjusted Z-Score of Select Indicators n-Months Before Current Month



# Reliable Leading Indicators Imply A Recession Is Most Likely To Commence In The 4Q23-1Q24 Timeframe: 3M10Y Treasury Yield Curve

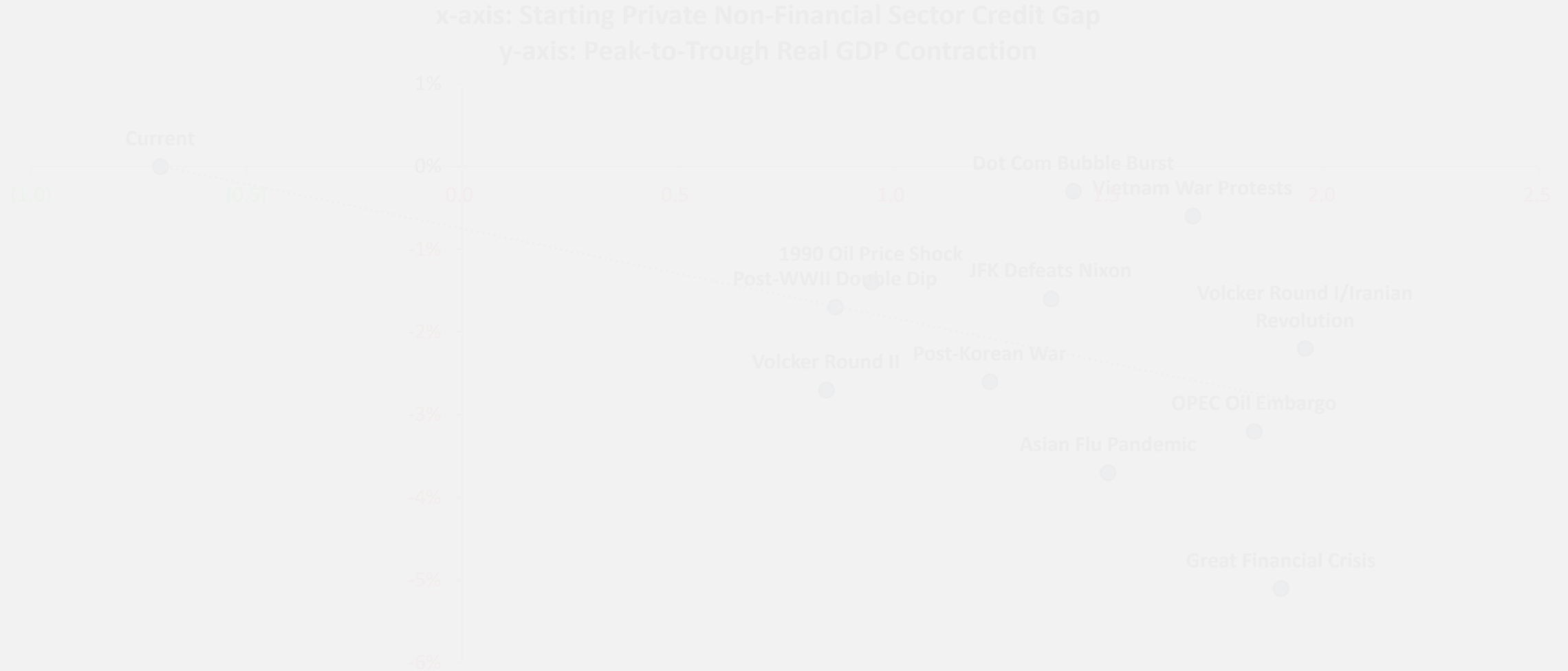


# Our #Math On 3M10Y Yield Curve Inversions Suggests A Recession Is Most Likely To Commence In The Nov-23 Through Apr-24 Period

Date of 3M10Y Yield Curve Inversion	Real GDP 0-6mos Forward	Real GDP 7-12mos Forward	Real GDP 13-18mos Forward	Industrial Production 0-6mos Forward	Industrial Production 7-12mos Forward	Industrial Production 13-18mos Forward	Nonfarm Payrolls 0-6mos Forward	Nonfarm Payrolls 7-12mos Forward	Nonfarm Payrolls 13-18mos Forward	Unemployment Rate 0-6mos Forward	Unemployment Rate 7-12mos Forward	Unemployment Rate 13-18mos Forward	Core PCE YoY 0-6mos Forward	Core PCE YoY 7-12mos Forward	Core PCE YoY 13-18mos Forward
12/17/1968	2.3%	0.2%	-0.0%	2.6%	-0.5%	-2.7%	2.4%	0.9%	-0.3%	10bps	0bps	140bps	-4bps	13bps	-13bps
6/1/1973	1.5%	-0.6%	-1.3%	2.1%	-0.6%	-7.9%	1.8%	0.7%	-1.2%	0bps	50bps	180bps	166bps	261bps	232bps
11/1/1978	1.5%	0.9%	0.6%	1.2%	-0.3%	-4.2%	2.1%	0.9%	-0.2%	-20bps	30bps	160bps	36bps	27bps	121bps
10/27/1980	3.9%	0.4%	-2.6%	2.6%	0.4%	-3.8%	1.2%	0.1%	-1.3%	-30bps	70bps	140bps	-30bps	-102bps	-149bps
5/22/1989	1.5%	1.3%	0.4%	-0.7%	1.5%	-1.3%	0.9%	1.0%	-0.6%	20bps	0bps	80bps	-70bps	22bps	24bps
7/7/2000	0.7%	0.3%	-0.1%	-1.2%	-2.9%	-0.9%	0.5%	-0.4%	-1.0%	20bps	40bps	110bps	26bps	12bps	-70bps
7/17/2006	1.0%	0.9%	1.2%	0.7%	1.7%	0.6%	0.8%	0.4%	0.3%	0bps	10bps	30bps	-10bps	-46bps	15bps
5/15/2019	1.6%	-0.7%	-1.3%	-0.1%	-15.8%	12.7%	0.7%	-12.3%	7.3%	0bps	960bps	-650bps	-20bps	-59bps	42bps
10/26/2022	1.0%			-0.5%			1.3%			-10bps			-50bps		
MIN	0.7%	-0.7%	-2.6%	-1.2%	-15.8%	-7.9%	0.5%	-12.3%	-1.3%	-30bps	0bps	-650bps	-70bps	-102bps	-149bps
1st QUARTILE	1.4%	-0.0%	-1.3%	-0.2%	-1.2%	-3.9%	0.8%	-0.0%	-1.1%	-5bps	8bps	68bps	-23bps	-49bps	-27bps
MEDIAN	1.5%	0.4%	-0.1%	1.0%	-0.4%	-2.0%	1.0%	0.6%	-0.4%	0bps	35bps	125bps	-7bps	12bps	20bps
3rd QUARTILE	1.7%	0.9%	0.5%	2.3%	0.6%	-0.5%	1.9%	0.9%	-0.1%	13bps	55bps	145bps	29bps	23bps	62bps
MAX	3.9%	1.3%	1.2%	2.6%	1.7%	12.7%	2.4%	1.0%	7.3%	20bps	960bps	180bps	166bps	261bps	232bps
PERCENT POSITIVE	100%	75%	38%	63%	38%	25%	100%	75%	25%	38%	75%	88%	38%	63%	63%
PERCENT NEGATIVE	0%	25%	63%	38%	63%	75%	0%	25%	75%	25%	0%	13%	63%	38%	38%
FED STILL HIKING w/in 3mo (n=3)	1.5%	0.4%	-1.3%	2.1%	-0.3%	-4.2%	1.8%	0.7%	-1.2%	-20bps	50bps	160bps	36bps	27bps	121bps
FED PAUSE w/in 3mo (n=3)	1.0%	0.3%	-0.0%	0.7%	-0.5%	-0.9%	0.8%	0.4%	-0.3%	10bps	10bps	110bps	-4bps	12bps	-13bps
FED PIVOT w/in 3mo (n=2)	1.5%	0.3%	-0.4%	-0.4%	-7.2%	5.7%	0.8%	-5.6%	3.4%	10bps	480bps	-285bps	-45bps	-19bps	33bps
MEAN OF BOLDED SCENARIOS	1.5%	0.4%	-0.7%	1.6%	-0.3%	-3.1%	1.4%	0.7%	-0.8%	-10bps	43bps	143bps	15bps	19bps	70bps

Data Source: Bloomberg. All summary statistics featured in the bottom clusters of rows are MEDIAN values unless denoted otherwise. Intellectual Property of 42 Macro LLC.

# The Pending Recession Will Likely Be Mild Based On Everything We Know Today



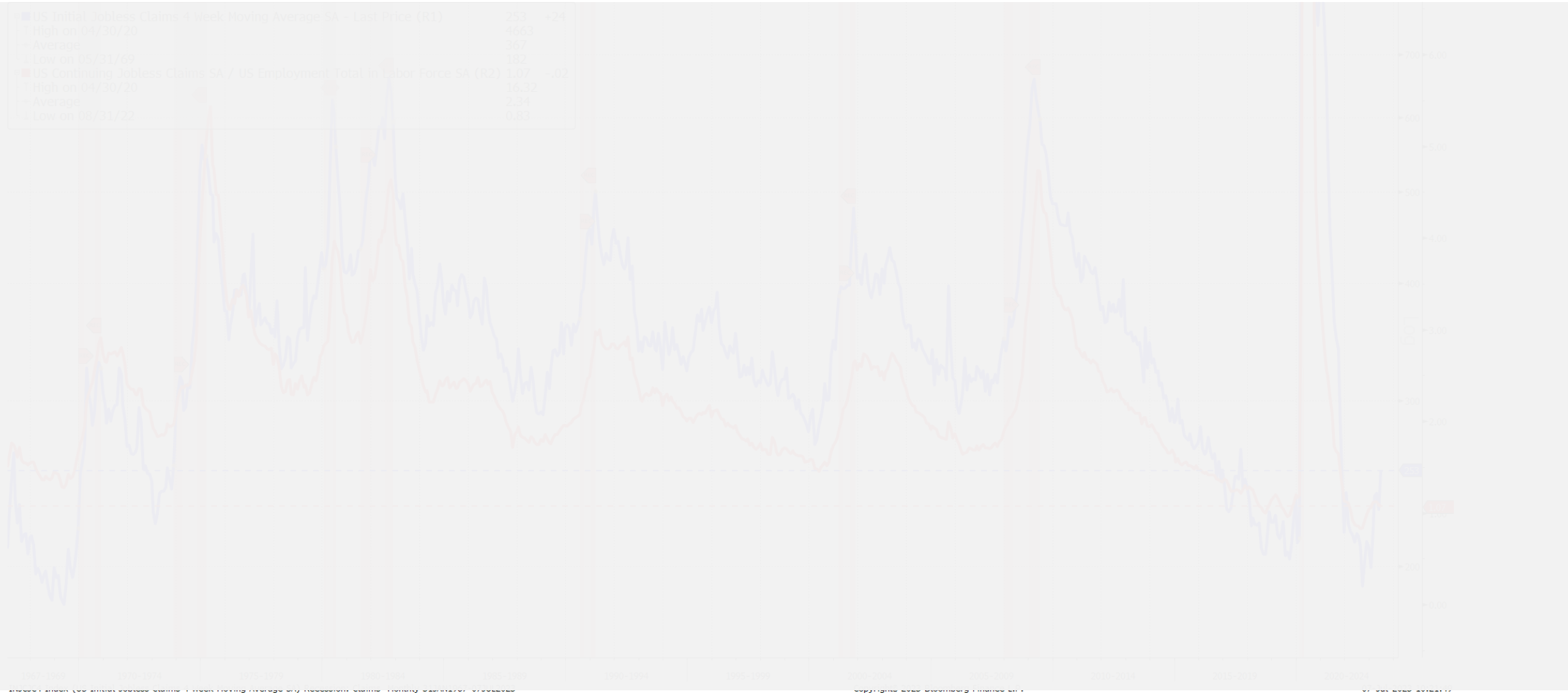


# Regardless Of Severity, Every Recession Has A **Phase 2 Credit Cycle** Downturn... And A Sharp Rally In Stocks Leading Up To It

			Trough					Peak					Duration of Phase 2				Months From		Months From		Months From																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			Unemployment Rate	Unemployment Rate	Unemployment Rate	Unemployment Rate	Unemployment Rate	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500

Data Source: NBER, Bloomberg. Intellectual Property of 42 Macro LLC. Asterisk = 3mo T-Bill Yield prior to the 1973-75 recession. Mild, Moderate, and Severe recession statistics are averages based on the magnitude of the Unemployment Rate Delta.

# How To Spot The Difference Between A Mere Late-Cycle Market Correction And The Start Of **Phase 2**: Watch Jobless Claims



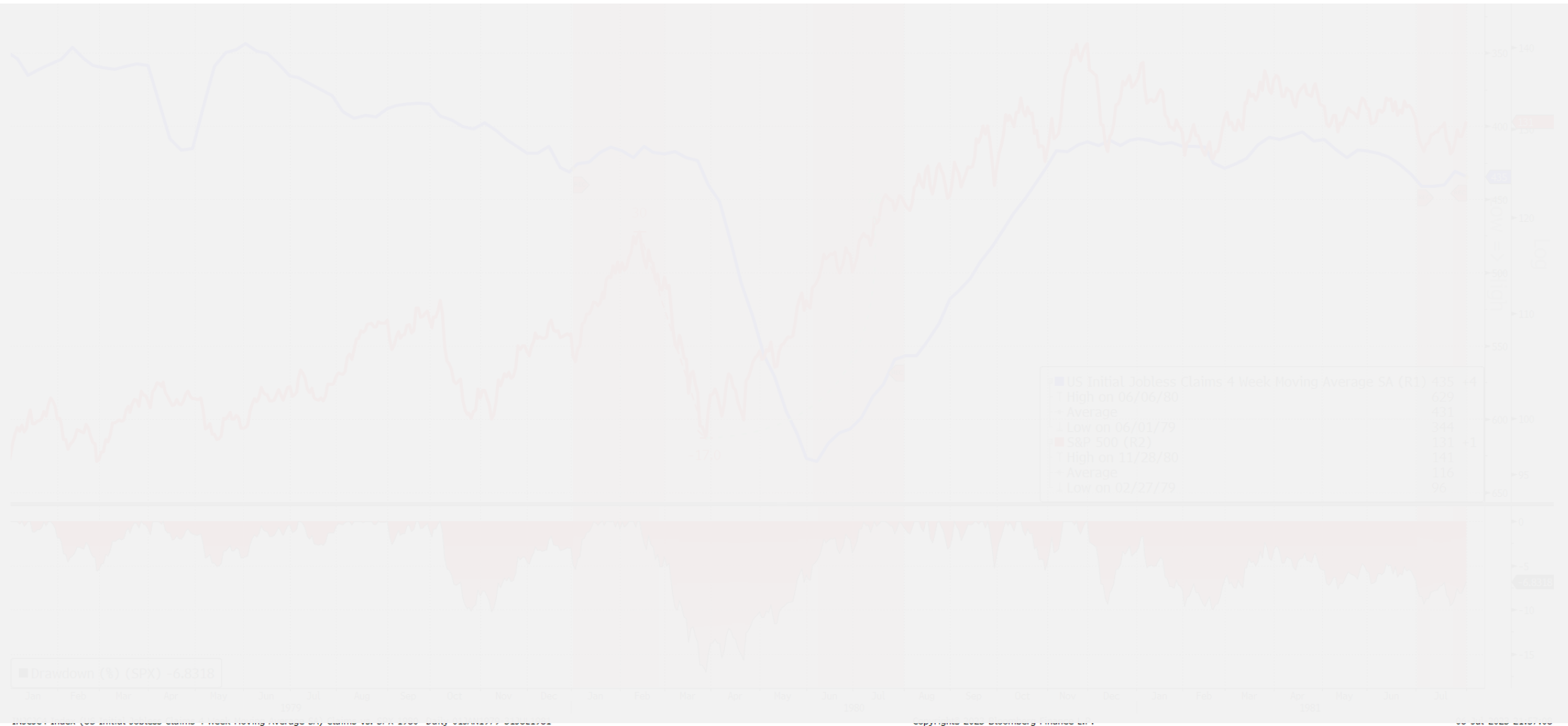
# Phase 2 Is Generally Coincident With A Breakout In Jobless Claims: 1969-70 Recession



# Phase 2 Is Generally Coincident With A Breakout In Jobless Claims: 1973-75 Recession



# Phase 2 Is Generally Coincident With A Breakout In Jobless Claims: 1980 Recession



# Phase 2 Is Generally Coincident With A Breakout In Jobless Claims: 1981-82 Recession





## Phase 2 Is Generally Coincident With A Breakout In Jobless Claims: 1990-91 Recession



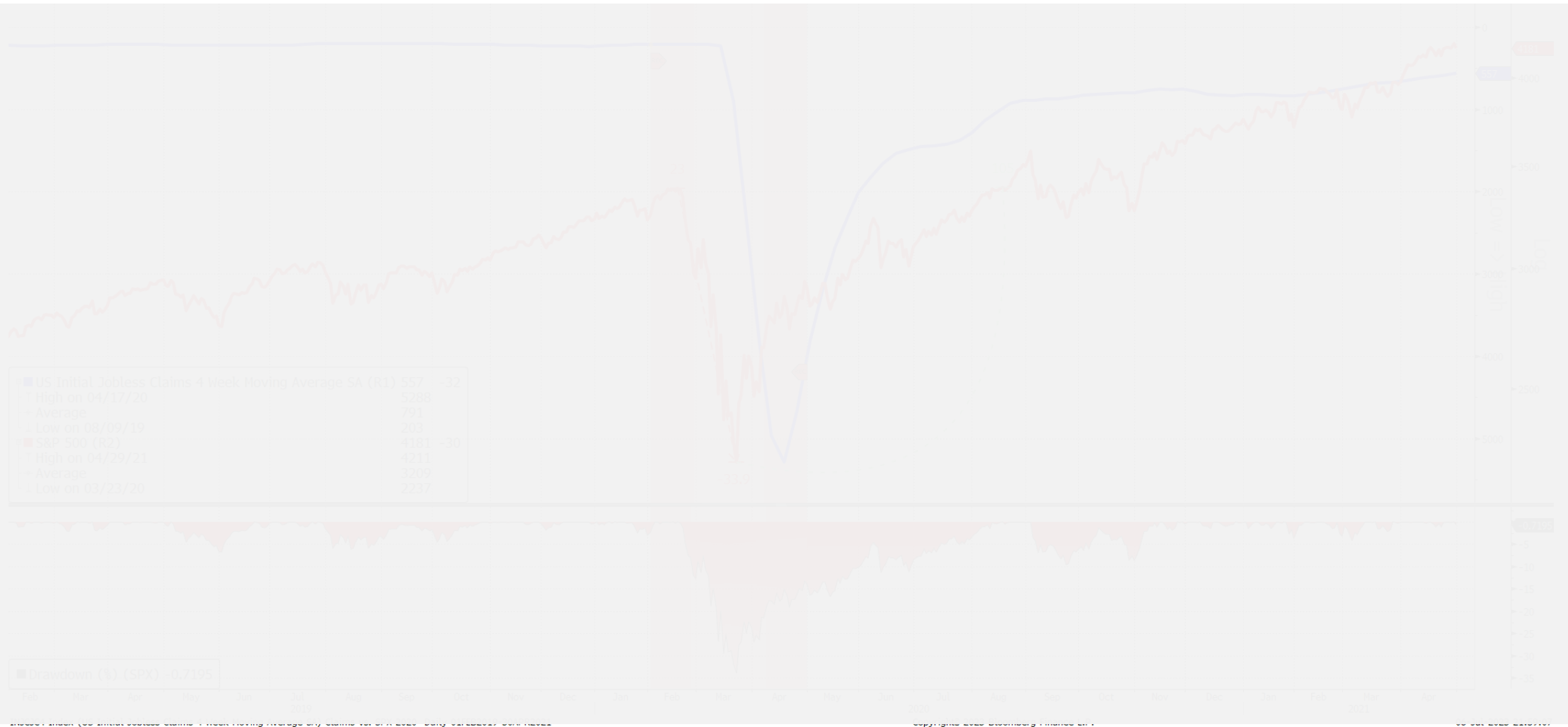
# Phase 2 Is Generally Coincident With A Breakout In Jobless Claims: 2001 Recession



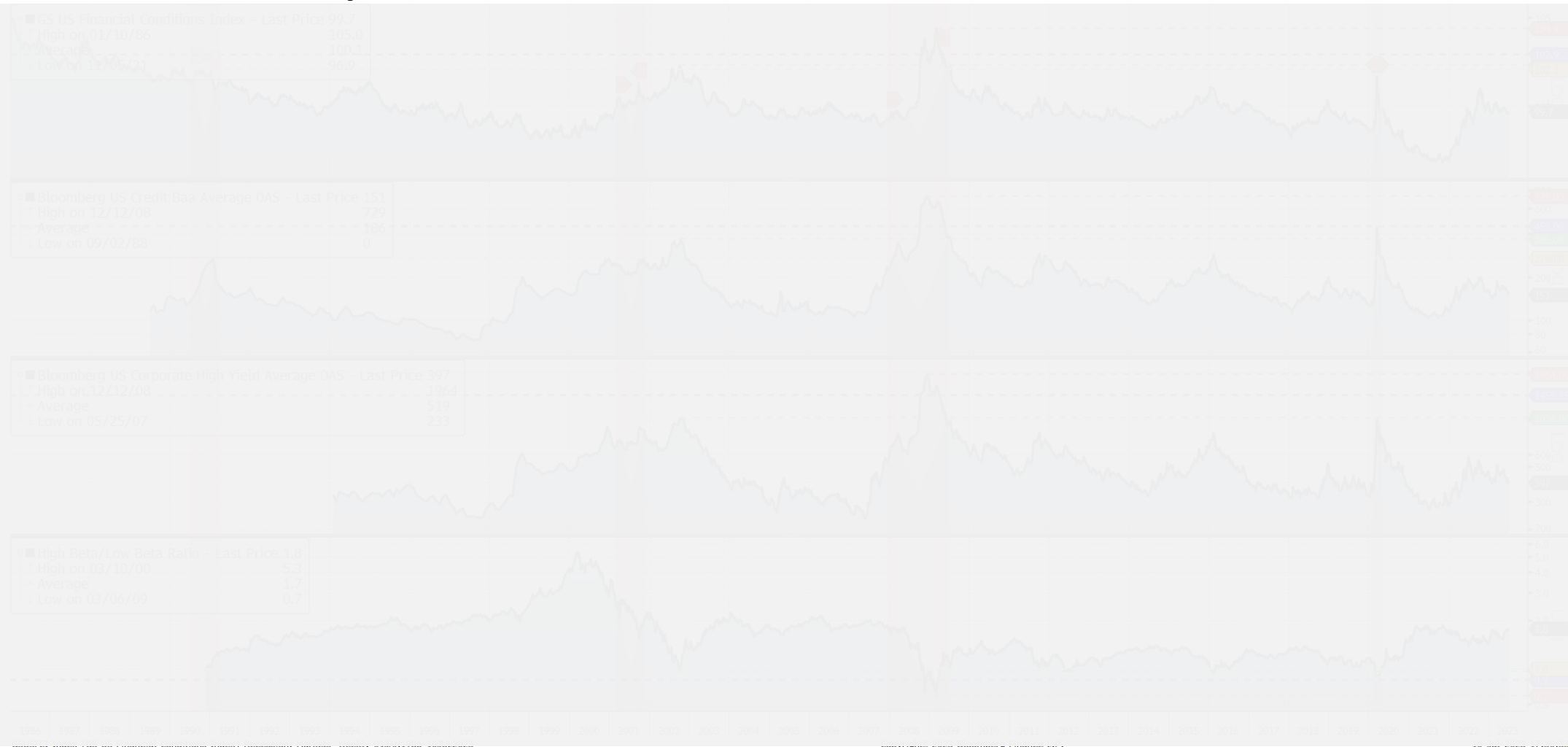
# Phase 2 Is Generally Coincident With A Breakout In Jobless Claims: The Great Recession



# Phase 2 Is Generally Coincident With A Breakout In Jobless Claims: COVID Recession



# Asset Markets Have Yet To Begin Pricing In The **Phase 2 Credit Cycle** Downturn, So That Risk Lies Ahead For Investors



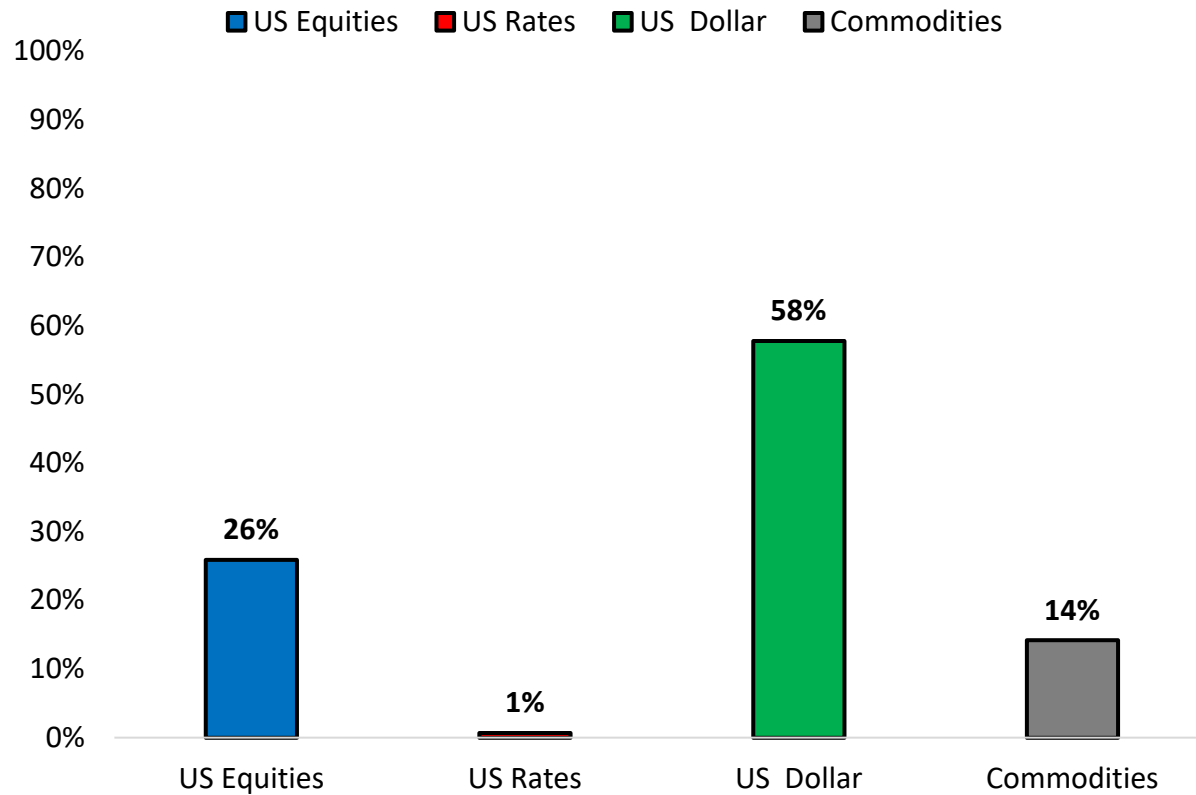
© 42 Macro LLC. Data Source: Bloomberg.

Orange Line = 1990-91 recession peak/trough. Green Line = 2001 recession peak/trough.

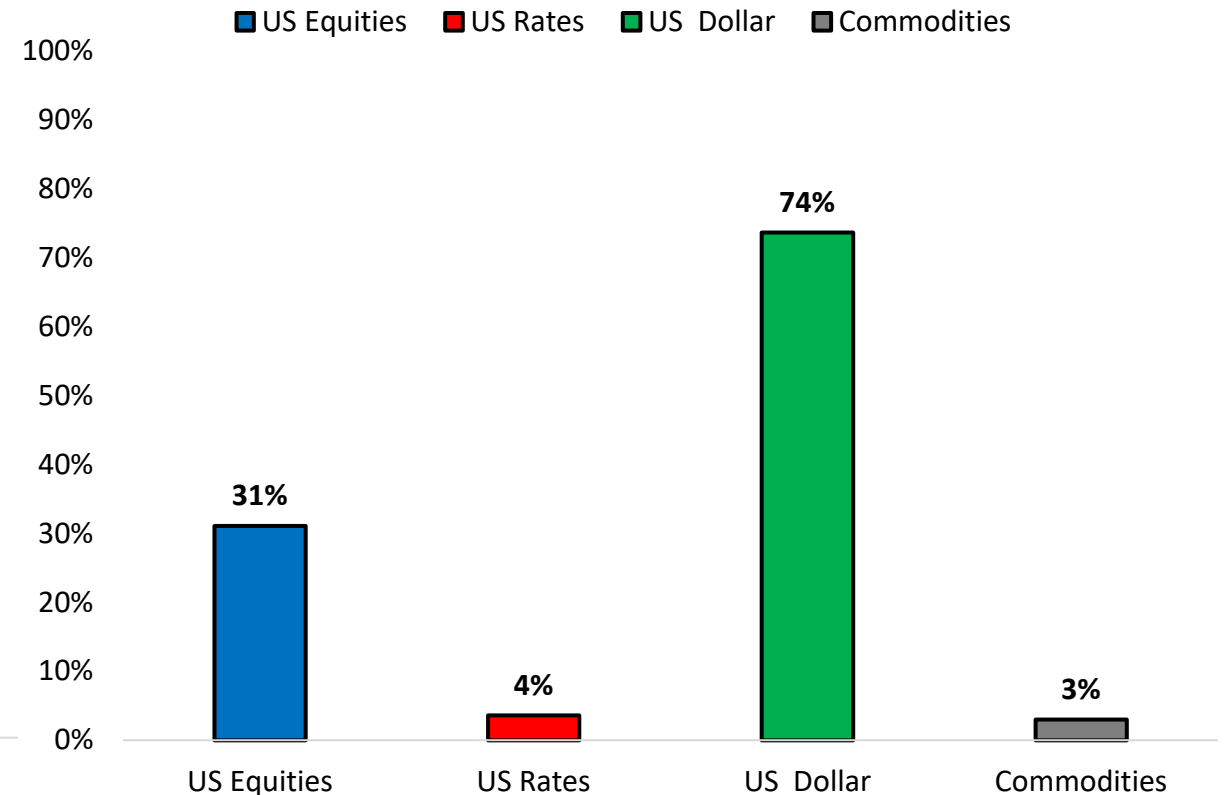
Red Line = GFC peak/trough. Blue Line = mean.

# In The Interim, POSITIONING Dynamics May Continue To Squeeze The Market Higher

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

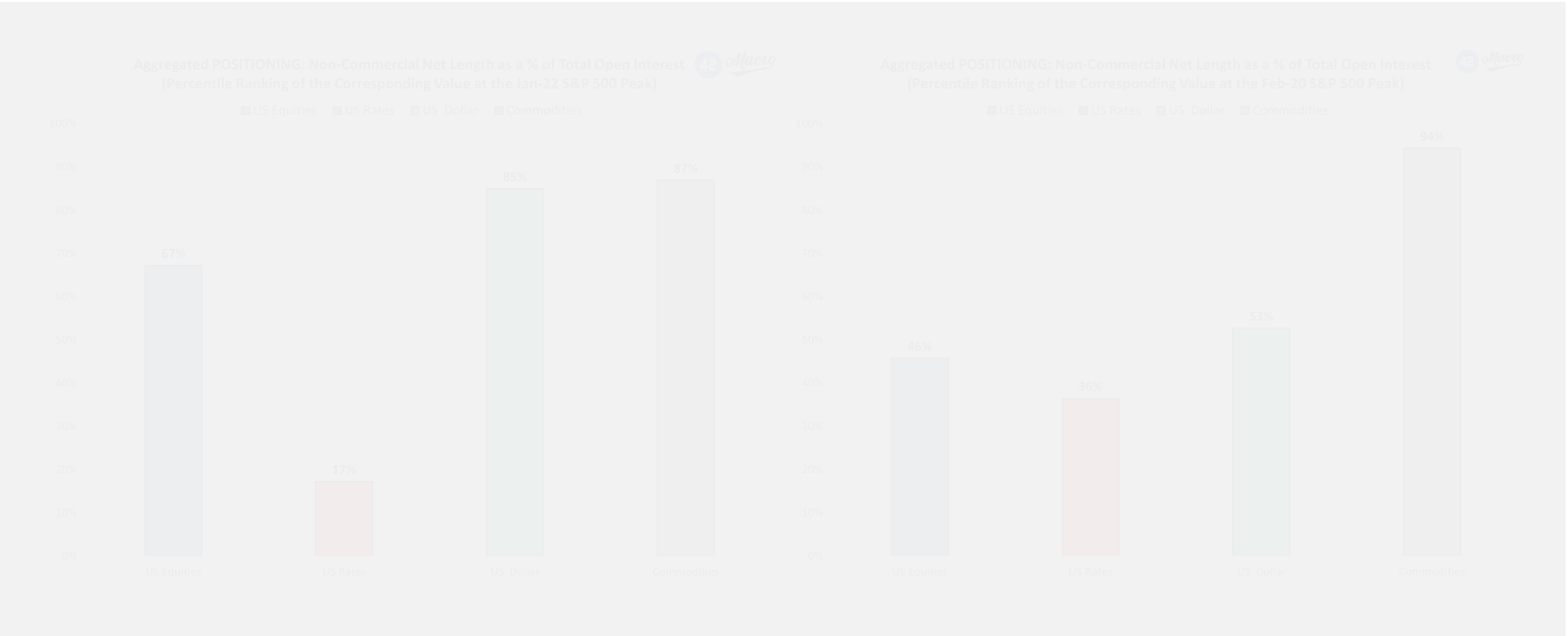


Aggregated POSITIONING: Non-Commercial Net Length as a % of Total Open Interest (Percentile Ranking of the Corresponding Value at the Oct-22 S&P 500 Trough)

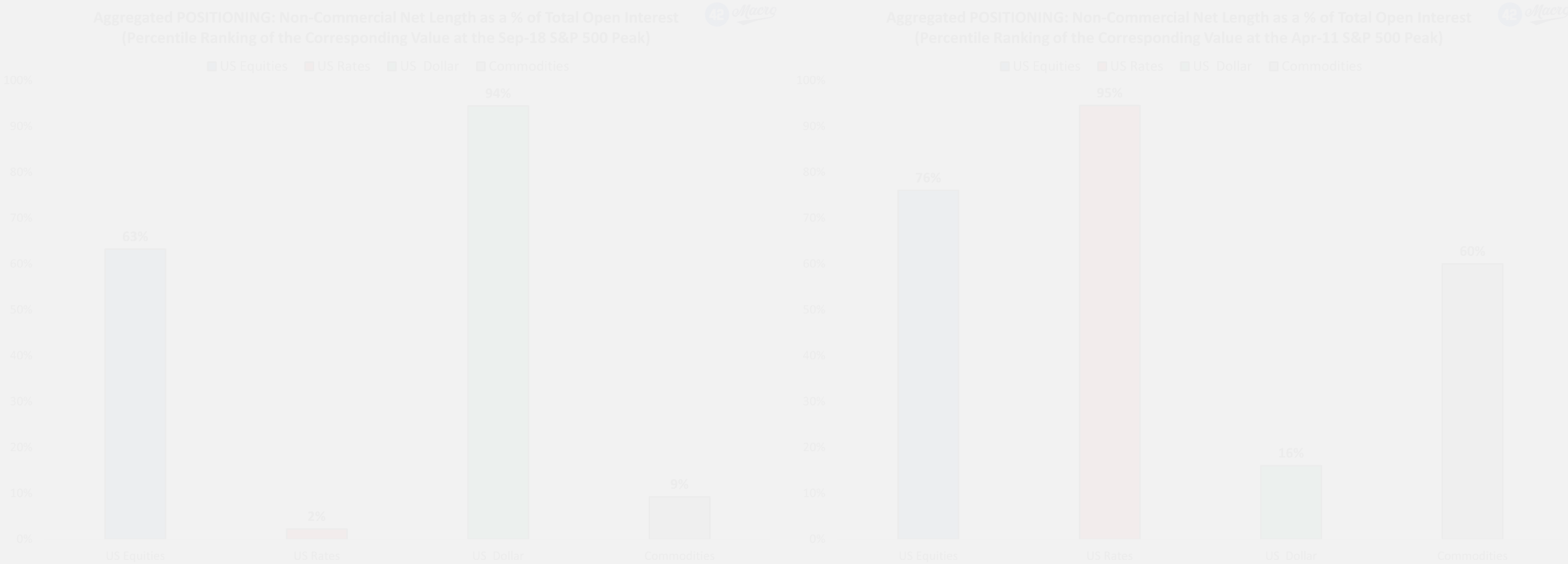




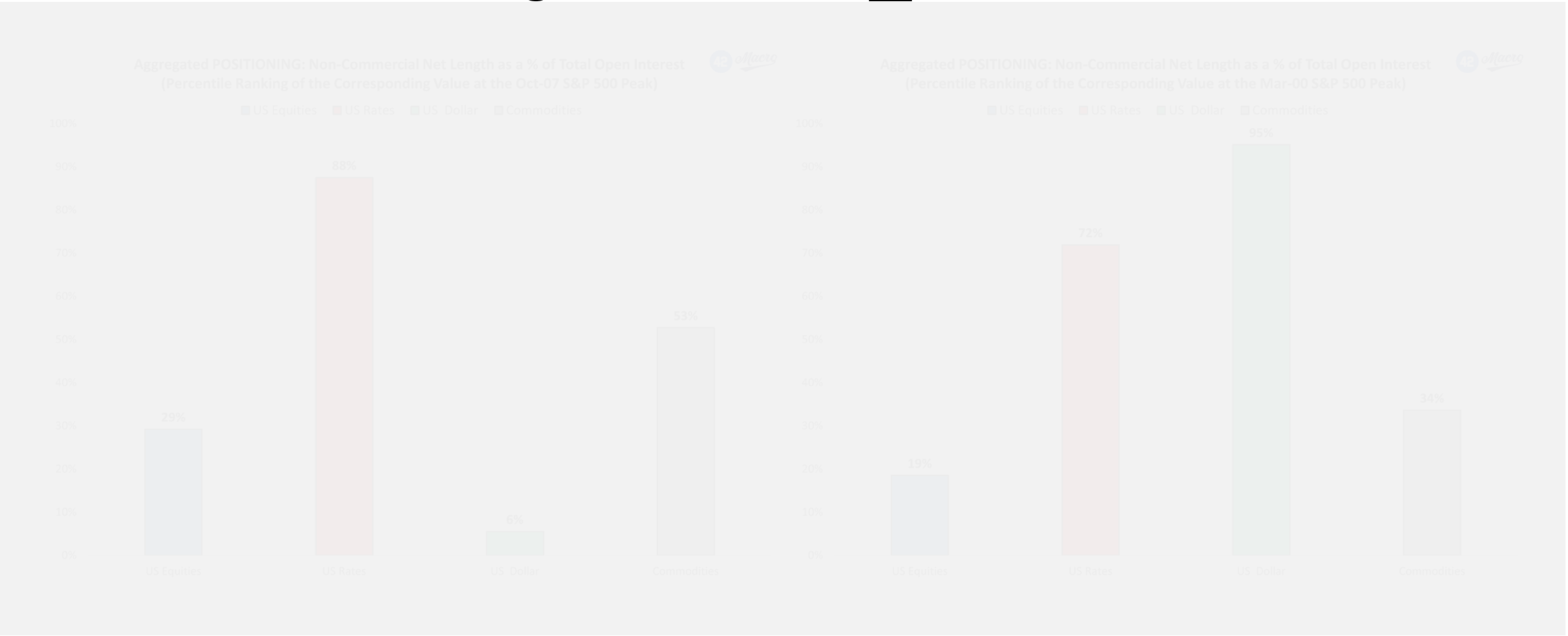
# Aggregated POSITIONING In Equities Is Well Off The Jan-22 Peak And COVID Was A Fluke



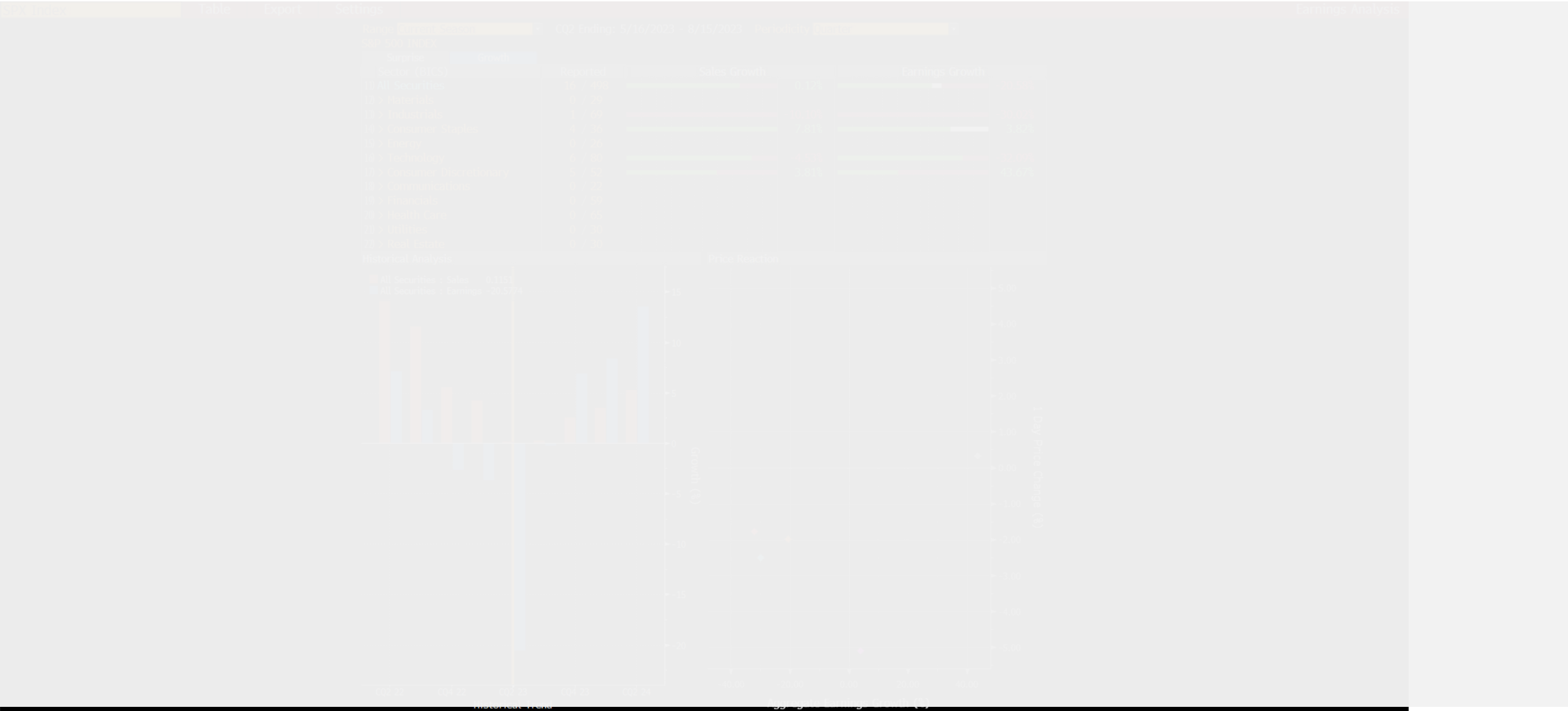
# Aggregated POSITIONING In Equities Is Well Off The Sep-18 And Apr-11 Peaks



# Contrary To Popular Opinion, Investors Broadly Saw The GFC And Dot Com Busts Coming... Is This Time Indifferent?



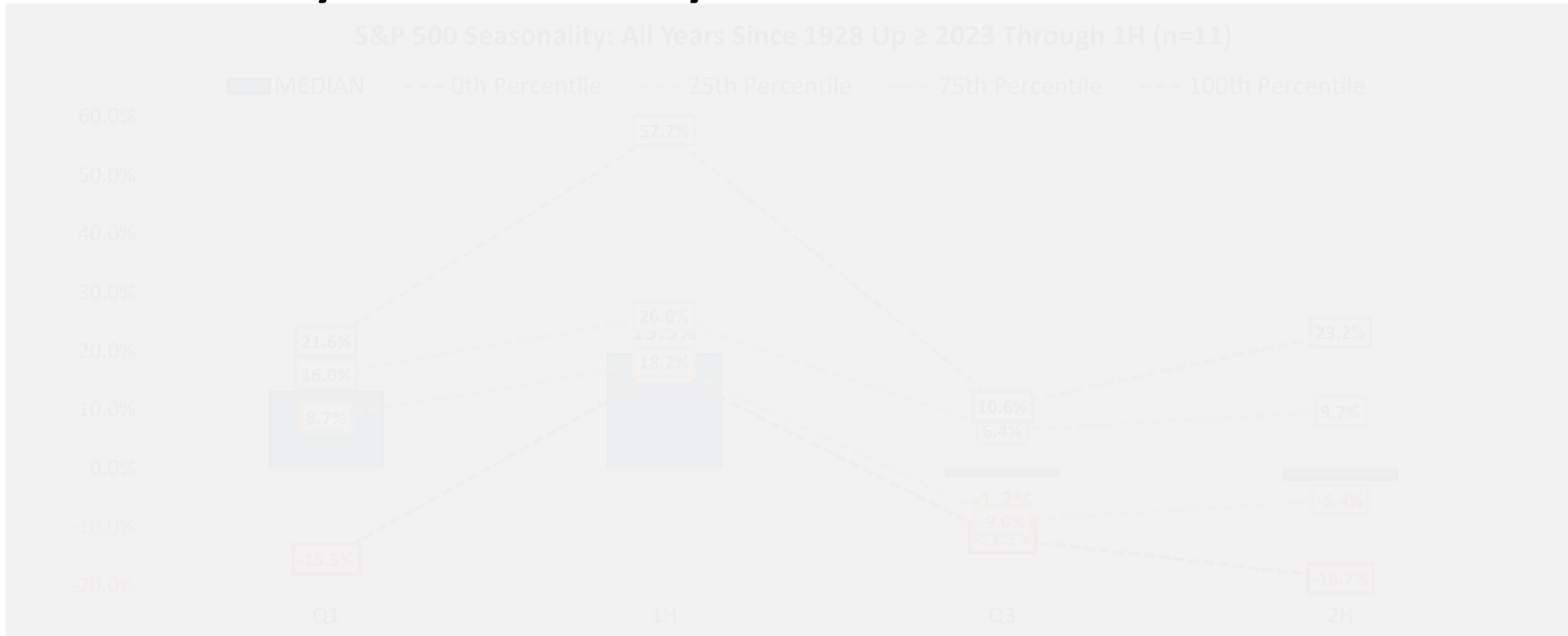
# Sales And Earnings Growth Expectations For Q2-Q3 Are Muted; Its Q4-Q2 2024 Investors Must Be Worried About



# Left Tail Risk



# Second Half Returns In The Equity Market Tend To Be Poor When Preceded By A First Half Rally $\geq$ 1H23's +16% Advance

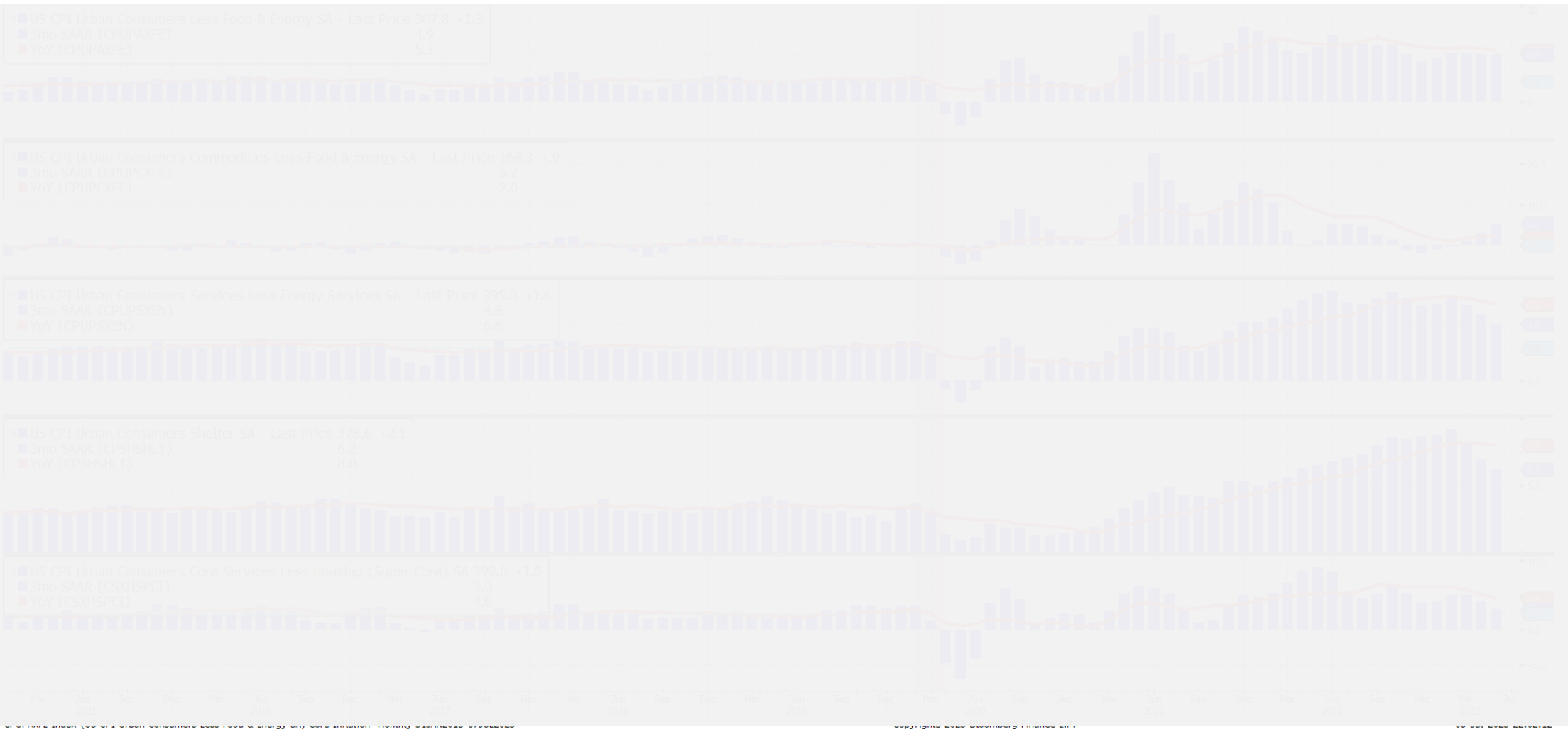




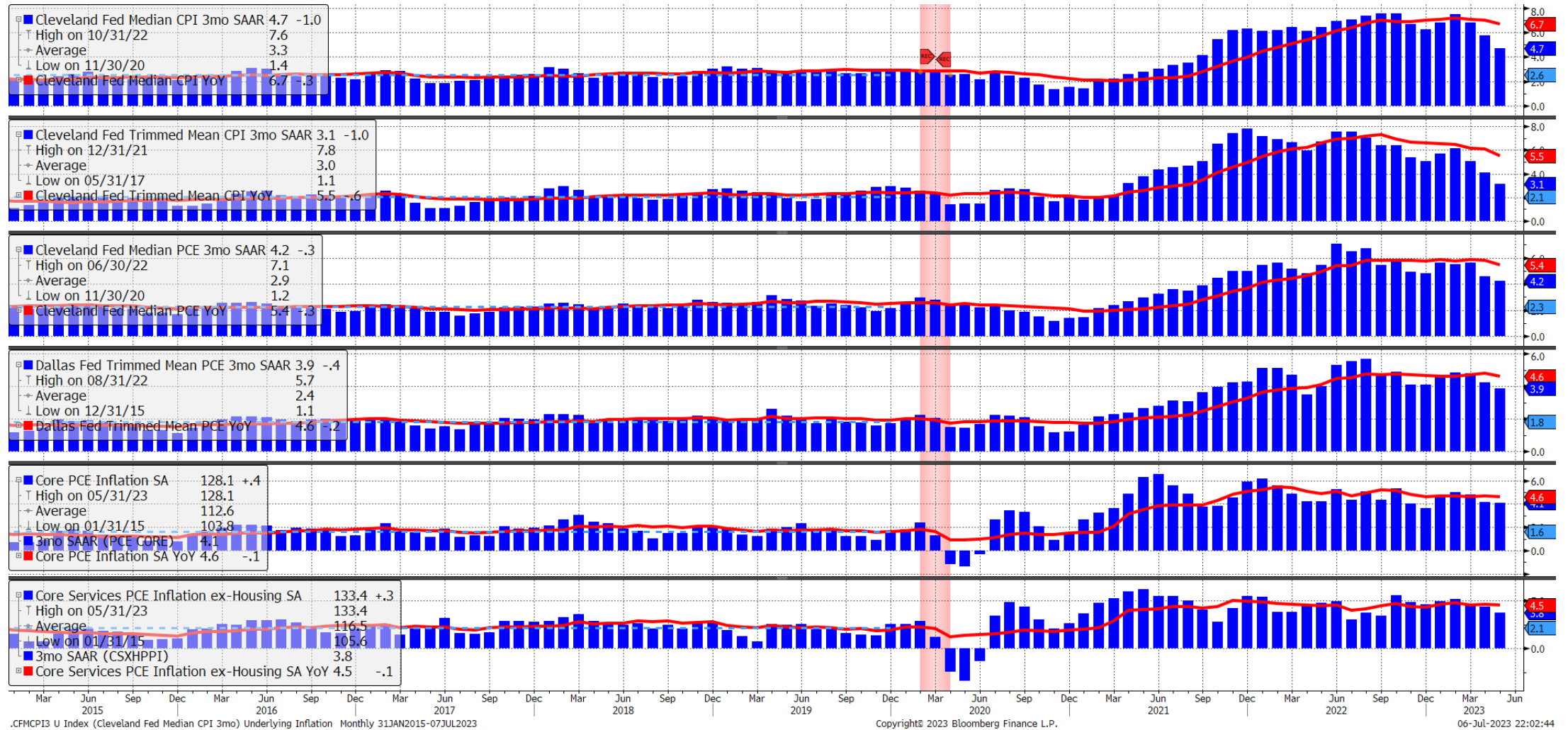
# A Resilient Economy = Resilient Headline Inflation



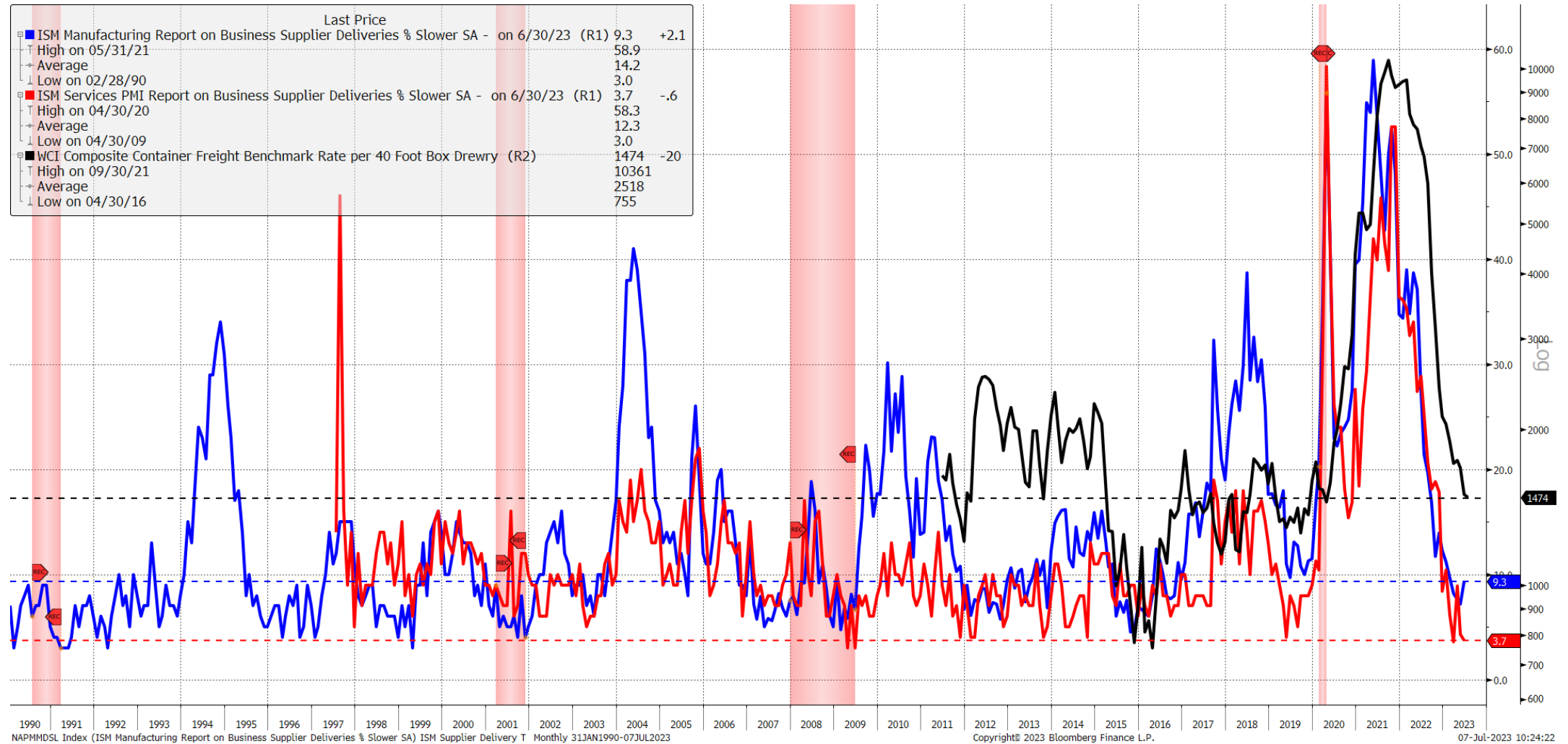
# A Resilient Economy = Resilient Core Inflation Too



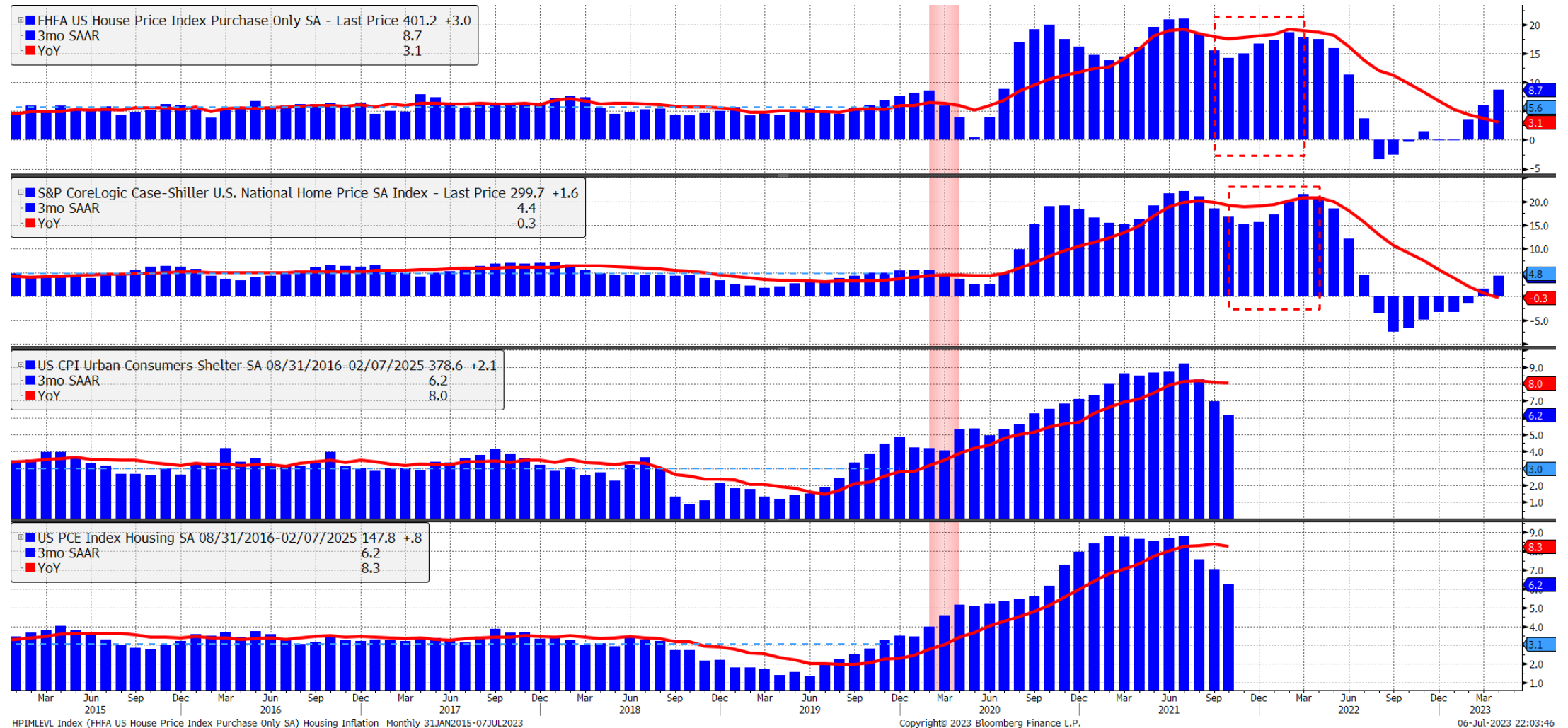
# A Resilient Economy = Resilient Underlying Inflation As Well



# Immaculate Disinflation Appears Set To Conclude Soon



# Housing Disinflation May Take An Unwelcome Breather In 2H23



# Reminder: Inflation Is The Most Lagging Indicator Of The Business Cycle

Economic Indicators	Median Trailing 12-Month Adjusted Z-Score of Select Indicators n Months Before/After Start of Recession											Key Takeaways		
	-24	-18	-12	-6	0	6	12	18	24	30	36	Median Number Of Months Prior to Recession Start Of Sustained Downturn	Median Number Of Months Post Recession Start Of Sustained Upturn	Trailing 12-Month Momentum of Delta Adjusted Z-Score Relative to Recession
HOUSING	0.1	(0.1)	(0.4)	(0.3)	(0.7)	(0.8)	(1.2)	(0.7)	(0.3)	1.2	0.6	18	13	(0.2)
ORDERS	0.0	0.3	(0.1)	(0.5)	(0.1)	(0.4)	(1.1)	(0.9)	(0.4)	(0.2)	(0.0)	10	13	(0.2)
PRODUCTION/PROFITS	0.1	0.4	0.2	(0.0)	(0.0)	(0.1)	(0.7)	(1.2)	(1.5)	(0.6)	(0.0)	6	26	(0.0)
EMPLOYMENT	0.3	0.6	0.6	0.5	0.5	(0.1)	(0.8)	(1.3)	(1.7)	(1.1)	(0.8)	0	36+	(0.5)
INFLATION	0.4	0.6	0.6	0.5	0.6	1.1	0.6	0.2	(0.5)	(0.7)	(0.2)	-7	36+	(0.5)
Data Source: Bloomberg Intelligence, FRED, and NBER. All data is as of the end of the period shown. All data is subject to revision. All data is in US dollars unless otherwise noted. All data is for the US economy.														
INDICATORS: HOUSING: ISM Manufacturing New Orders, ISM Manufacturing New Orders-Inventories Spread, ISM Services New Orders, ISM Services New Orders-Backlog Spread, Manufacturers New Orders YoY, Durable Goods New Orders YoY, and Core Capital Goods New Orders YoY														
ORDERS Indicators: ISM Manufacturing New Orders, ISM Manufacturing New Orders-Inventories Spread, ISM Services New Orders, ISM Services New Orders-Backlog Spread, Manufacturers New Orders YoY, Durable Goods New Orders YoY, and Core Capital Goods New Orders YoY														
PRODUCTION/PROFITS Indicators: Industrial Production YoY, Nominal Employee Compensation YoY, S&P 500 EPS YoY, NASDAQ 100 EPS YoY, and Russell 2000 EPS YoY														
EMPLOYMENT Indicators: Total Nonfarm Payrolls YoY, Civilian Nonfarm Payrolls YoY, Total Nonfarm Payrolls YoY, Civilian Nonfarm Payrolls YoY, and Total Nonfarm Payrolls YoY														
INFLATION Indicators: Headline CPI YoY, Core CPI YoY, Headline PPI YoY, Core PPI YoY, Headline CPI YoY, Core CPI YoY, Headline PPI YoY, Core PPI YoY, and Average Hourly Earnings YoY														

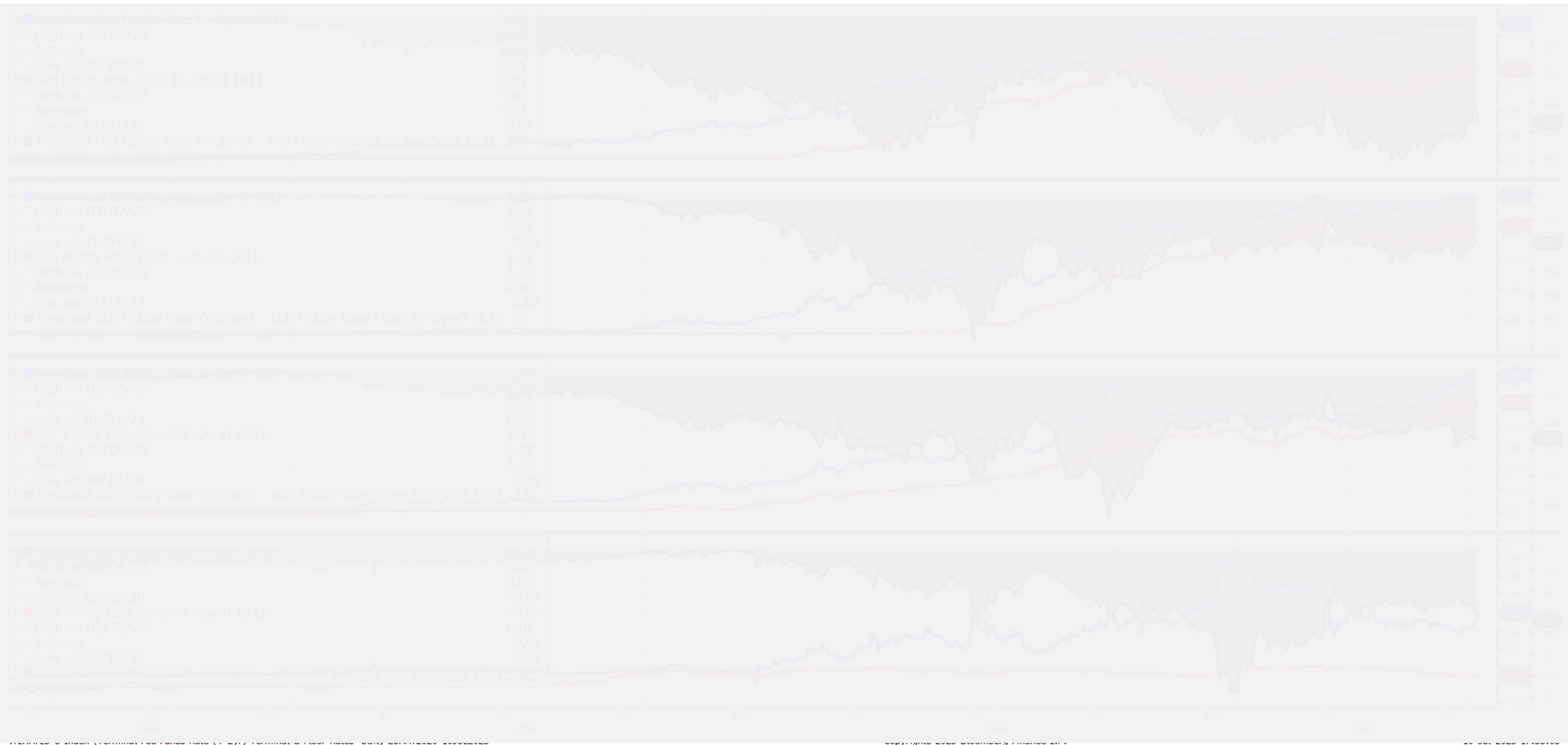
# History Confirms The Fed Must Break The Economy To Achieve Its Price Stability Mandate

Start	End	Primary Trigger	Real GDP Contraction	Starting Private Non-Financial Sector Credit Gap*	Peak Unemployment Rate	Nonfarm Payrolls Max Drawdown	Manufacturing Sector Share of Nonfarm Payrolls	Manufacturing Sector Share of NFP Drawdown	S&P 500 Max Drawdown	S&P 500 TTM EPS Max Drawdown	NIPA Corporate Profits Max Drawdown	Core PCE YoY Peak	Core PCE YoY Trough	bps Change t-1	bps Change t-2	bps Change t-3	Fed Funds Rate* Peak	Fed Funds Rate* Trough	bps Change t-1	bps Change t-2	bps Change t-3
Aug-29	Mar-33	Monetary Tightening	-26.7%		24.9%				-86%												
May-37	Jun-38	Fiscal Tightening	-18.2%		19.0%				-54%												
Feb-45	Oct-45	Fiscal Tightening	-12.7%		1.9%	-9%	42%	106%	-6%												
Nov-48	Oct-49	Monetary Tightening	-1.7%	0.9	7.9%	-5%	39%	85%	14%												
Jul-53	May-54	Monetary Tightening	-2.6%	1.2	6.1%	-3%	39%	98%	11%												
Aug-57	Apr-58	Pandemic	-3.7%	1.5	7.5%	-4%	37%	84%	15%	-20%	-24%						3.51%	1.02%	84bps	-249bps	165bps
Apr-60	Feb-61	Monetary Tightening	-1.6%	1.4	7.1%	-2%	35%	95%	28%	-11%	-15%	2.2%	1.2%		-94bps	10bps	4.68%	2.05%	19bps	-263bps	13bps
Dec-69	Nov-70	Monetary Tightening/Fiscal Tightening	-0.6%	1.7	6.1%	-1%	32%	212%	14%	-18%	-20%	4.8%	4.5%	3bps	-23bps	-88bps	8.08%	4.80%	176bps	-328bps	-70bps
Nov-73	Mar-75	Energy Price Shock	-3.2%	1.8	9.0%	-2%	30%	188%	16%	-4%	-12%	4.9%	4.9%	179bps	0bps	-387bps	11.00%	5.50%	350bps	-550bps	-75bps
Jan-80	Jul-80	Monetary Tightening/Energy Price Shock	-2.2%	2.0	7.8%	-1%	27%	153%	19%	-4%	-18%	8.2%	8.2%	144bps	0bps	-37bps	15.50%	9.50%	400bps	-600bps	600bps
Jul-81	Nov-82	Monetary Tightening	-2.7%	0.8	10.8%	-3%	26%	94%	32%	-22%	-9%	9.8%	5.9%	-37bps	-389bps	-138bps	20.00%	9.00%	600bps	-1100bps	50bps
Jul-90	Mar-91	Energy Price Shock	-1.4%	0.9	7.8%	-1%	22%	121%	11%	-43%	-6%	4.1%	3.7%	1bps	-42bps	-36bps	9.00%	6.00%	-100bps	-300bps	-200bps
Mar-01	Nov-01	Monetary Tightening	-0.3%	1.4	6.3%	-2%	18%	107%	20%	-29%	-8%	2.0%	1.2%	3bps	-82bps	-12bps	6.50%	2.00%	-100bps	-450bps	-75bps
Dec-07	Jun-09	Monetary Tightening	-5.1%	1.9	10.0%	-6%	16%	55%	16%	-35%	-37%	2.6%	0.7%	9bps	-184bps	84bps	5.25%	0.25%	-100bps	-500bps	0bps
Feb-20	Apr-20	Pandemic	-19.2%	0.5	14.7%	-14%	14%	12%	22%	-15%	-18%	1.8%	0.9%	6bps	-92bps	221bps	2.50%	0.25%	-75bps	-225bps	0bps
MEDIAN - All			-2.7%	1.4	7.8%	-3%	30%	98%	15%	-19%	-17%	4.1%	3.7%	5bps	-82bps	-36bps	7.3%	3.4%	52bps	-389bps	0bps
25th Percentile			-1.7%	0.9	6.7%	-2%	22%	85%	19%	-12%	-11%	2.2%	1.2%	3bps	-23bps	10bps	4.8%	1.3%	-94bps	-272bps	-74bps
75th Percentile			-8.9%	1.7	10.4%	-5%	37%	121%	11%	-27%	-20%	4.9%	4.9%	43bps	-94bps	-88bps	10.5%	5.9%	307bps	-538bps	41bps
MEDIAN - Monetary Tightening			-2.2%	1.4	7.8%	-3%	30%	96%	16%	-20%	-17%	3.7%	2.9%	3bps	-88bps	-24bps	7.3%	3.4%	98bps	-475bps	6bps
MEDIAN - Fiscal Tightening			-12.7%	1.7	6.1%	-5%	37%	159%	-6%	-18%	-20%	4.8%	4.5%	3bps	-23bps	-88bps	8.1%	4.8%	176bps	-328bps	-70bps
MEDIAN - Energy Price Shock			-2.2%	1.8	7.8%	-1%	27%	153%	16%	-4%	-12%	4.9%	4.9%	144bps	0bps	-37bps	11.0%	6.0%	350bps	-550bps	-75bps
MEDIAN - Pandemic			-11.5%	1.0	11.1%	-9%	25%	48%	19%	-18%	-21%	1.8%	0.9%	6bps	-92bps	221bps	3.0%	0.6%	5bps	-237bps	83bps
MILD Recession			-2.0%	1.3	7.0%	-2%	29%	124%	17%	-25%	-13%	3.3%	2.7%	2bps	-60bps	-31bps	7.07%	3.71%	-1bps	-335bps	-83bps
MODERATE Recession			-2.7%	1.5	8.2%	-3%	32%	123%	19%	-13%	-17%	7.6%	6.3%	95bps	-130bps	-187bps	12.50%	6.26%	359bps	-625bps	185bps
SEVERE Recession			-4.2%	1.2	14.1%	-10%	24%	58%	-22%	-25%	-28%	2.2%	0.8%	8bps	-138bps	152bps	3.88%	0.25%	-88bps	-363bps	0bps
Correlation* to Real GDP Contraction			1.00	0.49	(0.79)	0.24	0.67	0.75	0.80	(0.03)	(0.45)	0.31	0.36	0.08	0.06	(0.57)	0.41	0.46	0.25	(0.26)	0.01
r <sup>2</sup>			1.00	0.24	0.63	0.06	0.45	0.56	0.64	0.00	0.20	0.10	0.13	0.01	0.00	0.33	0.17	0.21	0.06	0.07	0.00

Intellectual Property of 42 Macro LLC. Data Source: NBER, Bloomberg. Asterisk = 3mo T-Bill Yield prior to the 1973-75 recession. Mild, Moderate, and Severe recession statistics are averages based on the magnitude of the Max Drawdown in Nonfarm Payrolls.



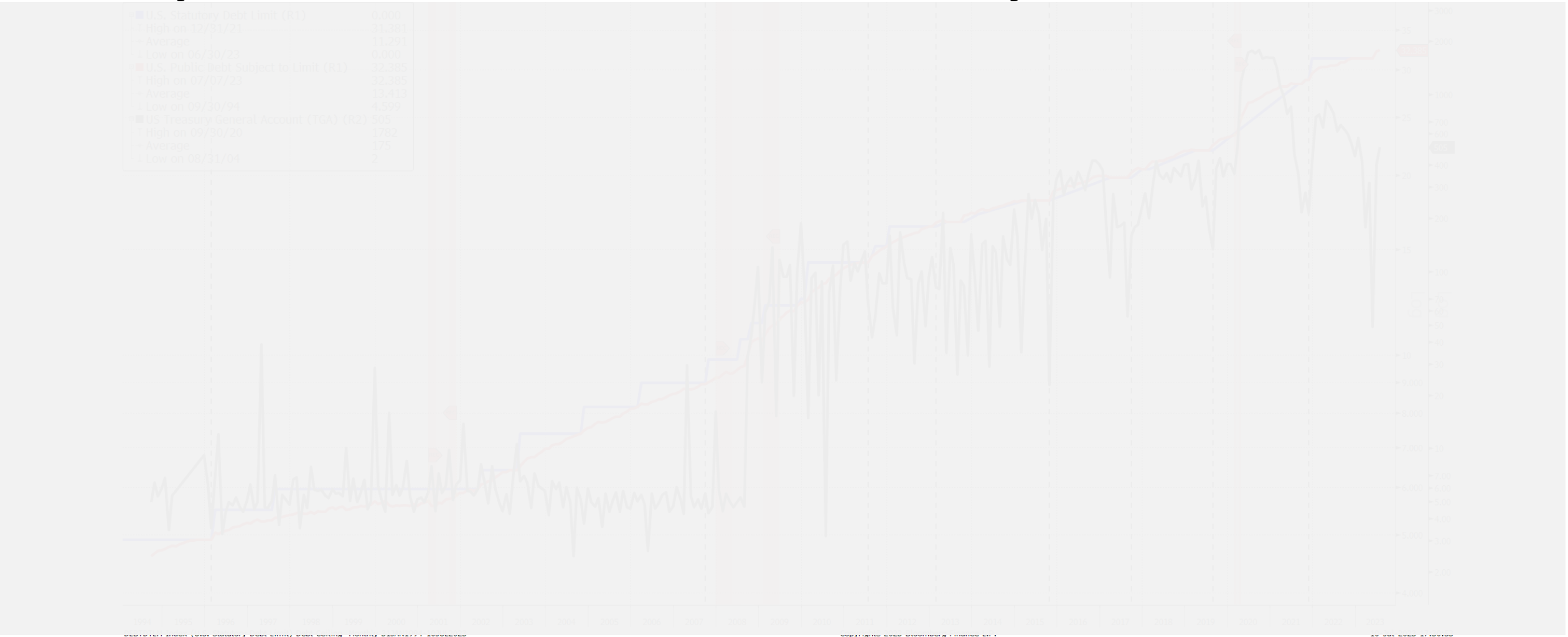
# Money Markets May Be Overpricing The Dovish Left Tail Of US Inflation Outcomes



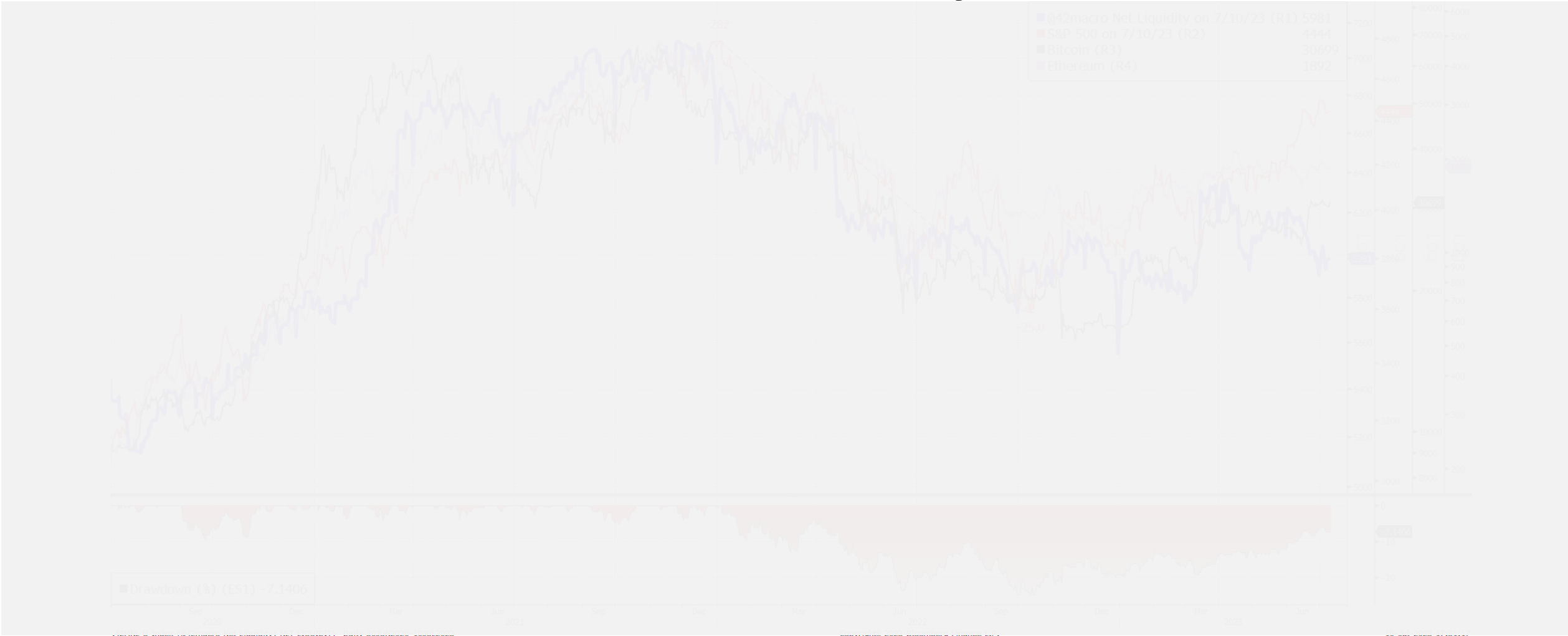
# Bond Markets Are Likely Overpricing The Dovish Left Tail Of US Inflation Outcomes Too



# The Return Of Uncle Sam To International Capital Markets May Catalyze Incremental Bond Market Volatility



# The Return Of Net Coupon Supply Will Cause QT To Drain Bank Reserves For The First Time Since January



# Burgeoning Treasury Supply Is A Structural Issue Because Private Sector Creditors Will Continue To Demand Higher Yields To Capitalize The US Government In The Absence Of A Recession



# Moreover, The FOMC Sees U3 At 4.5% By Yearend 2024, Which Suggests The Fed Is Implicitly Forecasting A Recession And Won't Ease Quickly

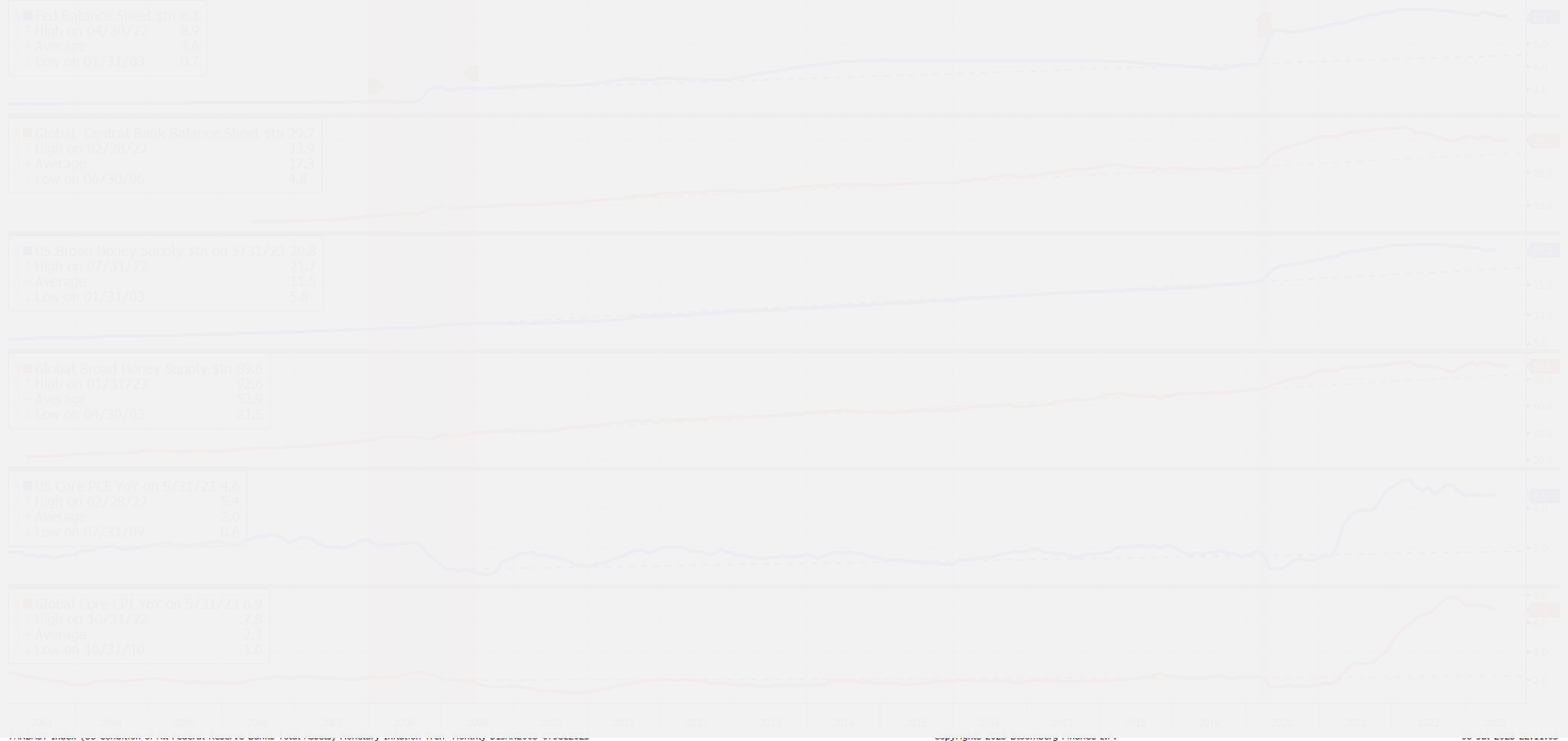


# @42Macro Secular Inflation Model: Our #Math Suggests Core PCE Is Likely To Trend 90-140bps Higher Throughout This Decade; Is 3% The New 2%?

U.S. SECULAR INFLATION MODEL FEATURES	ADJUSTED Z-SCORE (Latest Value vs. 2010-19 Sample)
Automation: Capex/Employee Compensation (Latest Value = 27%)	(1.4)
Commodities: CRB Index (Latest Value = 552)	2.5
Demographics: Share of Population ≥ 65 Years Old (Latest Value = 17%)	2.2
Fed Reaction Function: Fed Balance Sheet as a % of GDP (Latest Value = 32%)	3.5
Fiscal Policy: Sovereign Fiscal Balance as a % of GDP (Latest Value = -8%)	1.5
Globalization: Imports of Goods and Services as a % of GDP (Latest Value = 15%)	1.2
Household Formation: Net Change in Domestic Households (Latest Value = 1325)	0.9
Income Inequality: Gini Coefficient (Latest Value = 0.49)	(3.3)
Labor Supply: Labor Force Participation Rate (Latest Value = 62.6)	1.0
Money Supply: M2 YoY (Latest Value = -4%)	(5.2)
Money Velocity: M2/Nominal GDP (Latest Value = 1.3)	(2.7)
Monopsony Power: S&P 100 Market Cap/S&P 500 Market Cap (Latest Value = 68%)	(5.2)
Populism: 25-54 Employment-to-Population Ratio (Latest Value = 80%)	(1.5)
Productivity: Output Per Hour of Nonfarm Labor YoY (Latest Value = -0.8%)	2.1
Public Debt: Federal Debt Held by the Public as a % of GDP (Latest Value = 107%)	6.0
Technology: NASDAQ 100 Market Cap/Russell 3000 Market Cap (Latest Value = 39%)	(4.1)
Wages: Employment Cost Index YoY (Latest Value = 4.8%)	7.2
Wealth Effect: Household Checkable Deposits as a % of Total Assets (Latest Value = 0%)	10.9
Wealth Inequality: Top-10% Share of Household Wealth (Latest Value = 53%)	(1.2)
Mean Z-Score	0.8
Weighted Z-Score	2.4
2010-19 Trend of Core PCE YoY	1.6%
2020-29 Trend Projection - Mean Z-Score Model	2.5%
2020-29 Trend Projection - Weighted Z-Score Model	3.0%
2020-to-date Trend of Core PCE YoY	3.4%



# The Monetary Drivers Of The Dramatic, Global Surge In Inflation Are Poorly Understood By Institutional Financiers



**Monetary Stimulus + Fiscal Austerity = Supply Outpaces Demand In The Real Economy;  
Monetary Stimulus + Fiscal Profligacy = Demand Outpaces Supply In The Real Economy**

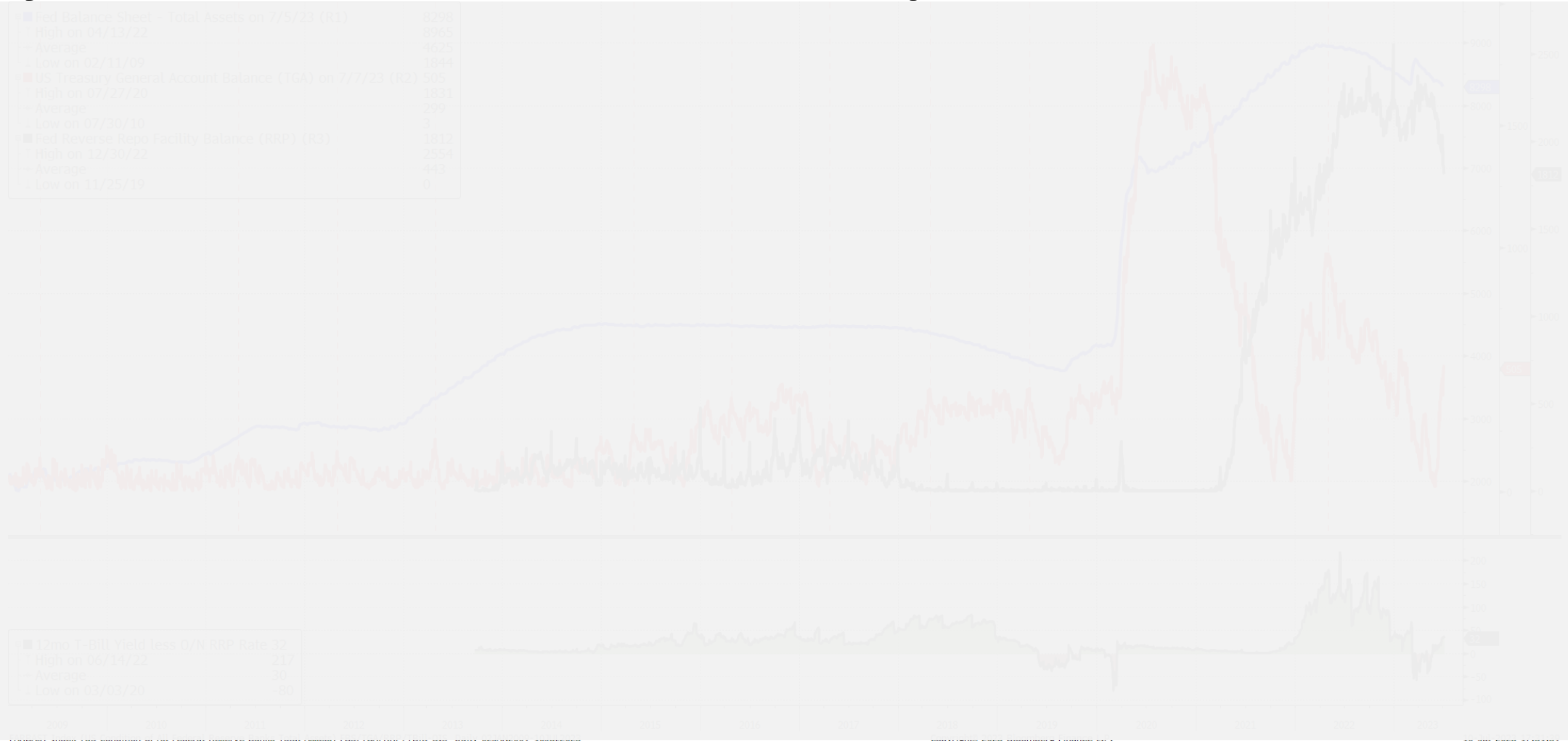
# Right Tail Risk



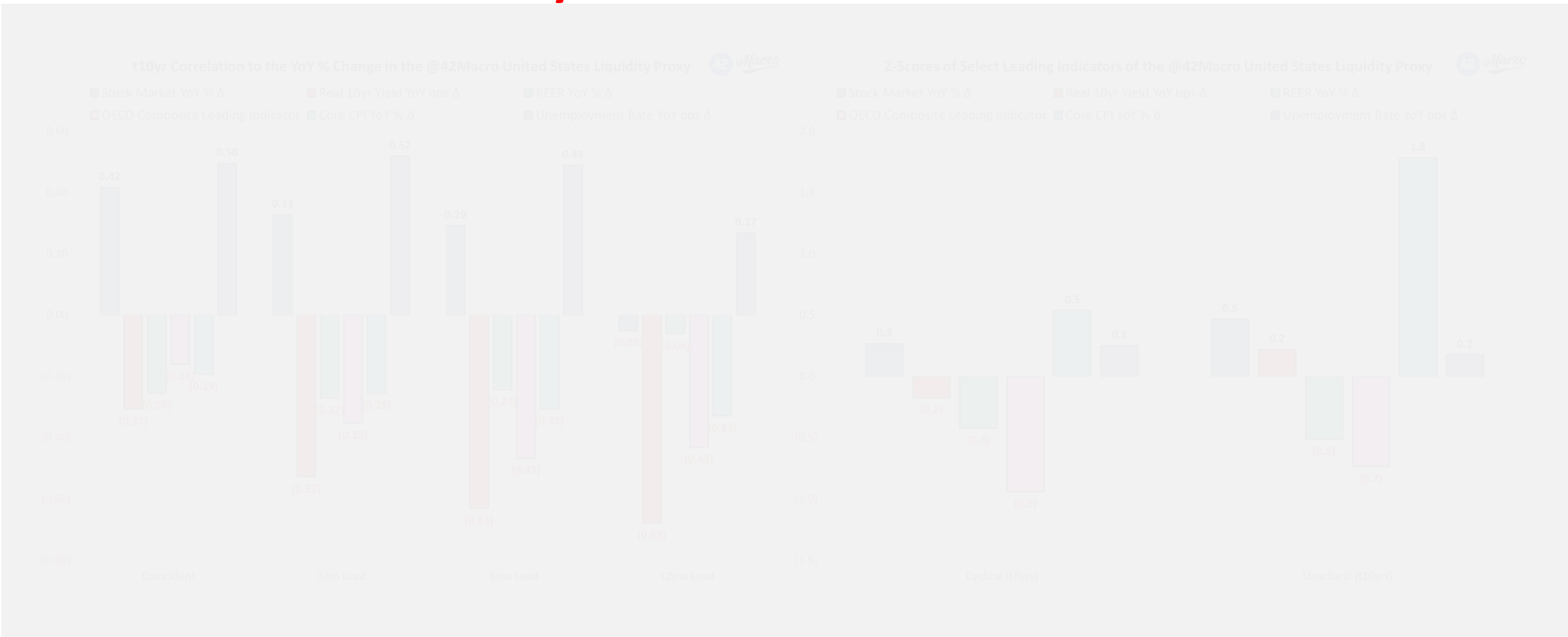
# Yellen's Plan To Flood The Market With T-Bills Worked Like A Charm To Limit The Market Impact Of The TGA Rebuild



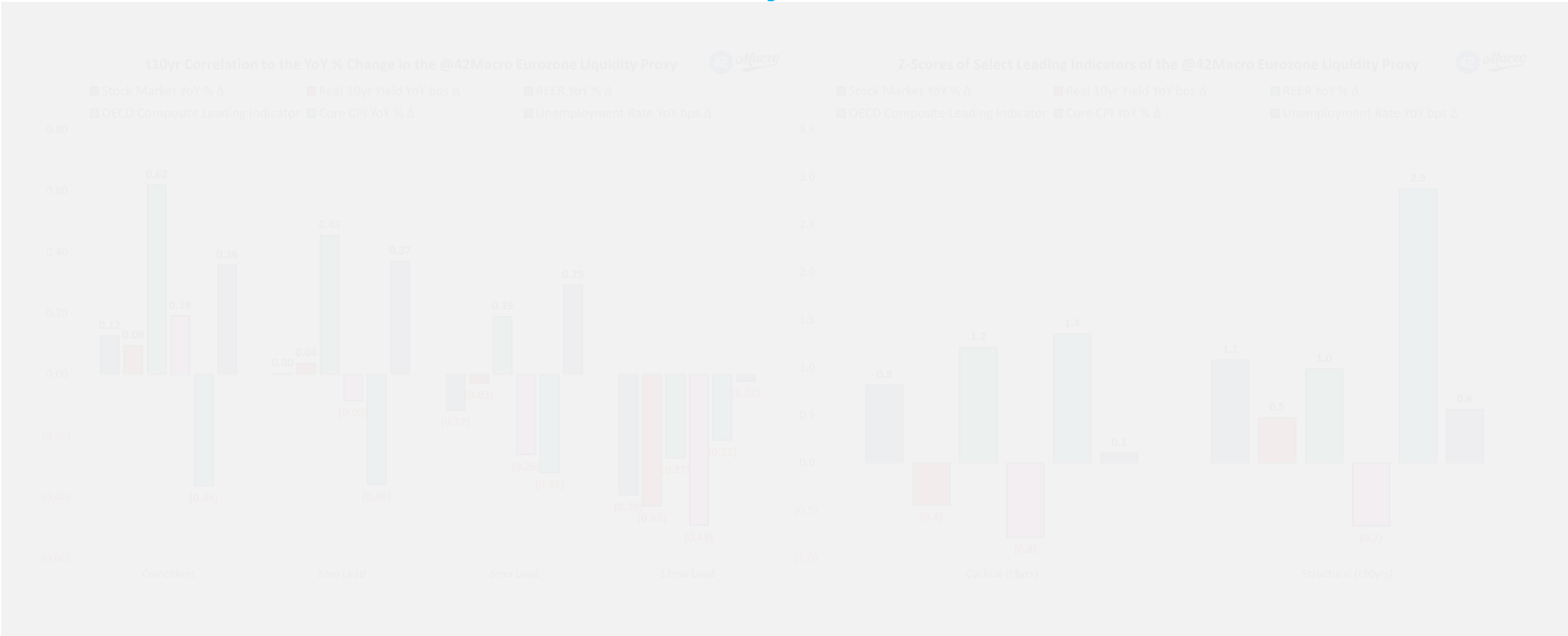
# Robust Interest Rate Differentials Suggests Money Market Funds May Continue To Reduce Their RRP Exposure To Lock In Rates



# Will **The US** Increase Its Public Sector Liquidity Provision Over The Medium Term? **Unlikely**

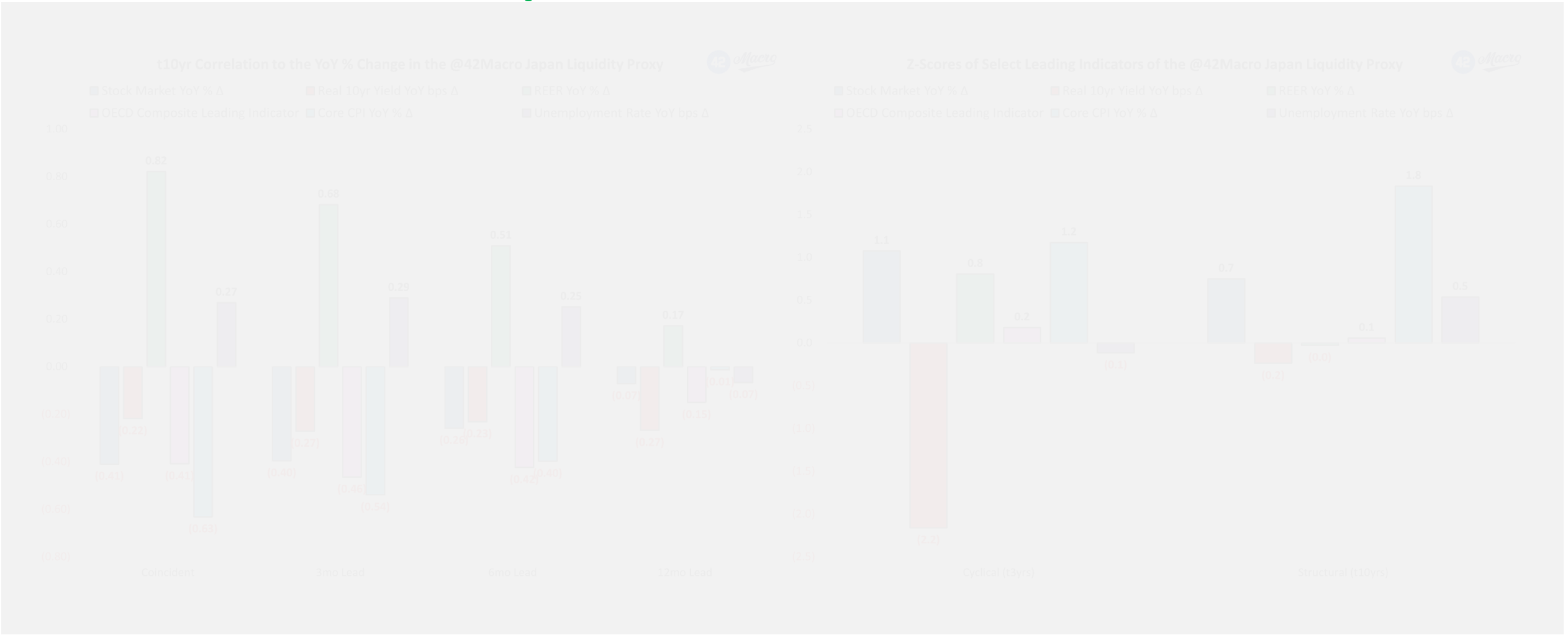


# Will The Eurozone Increase Its Public Sector Liquidity Provision Over The Medium Term? Unlikely



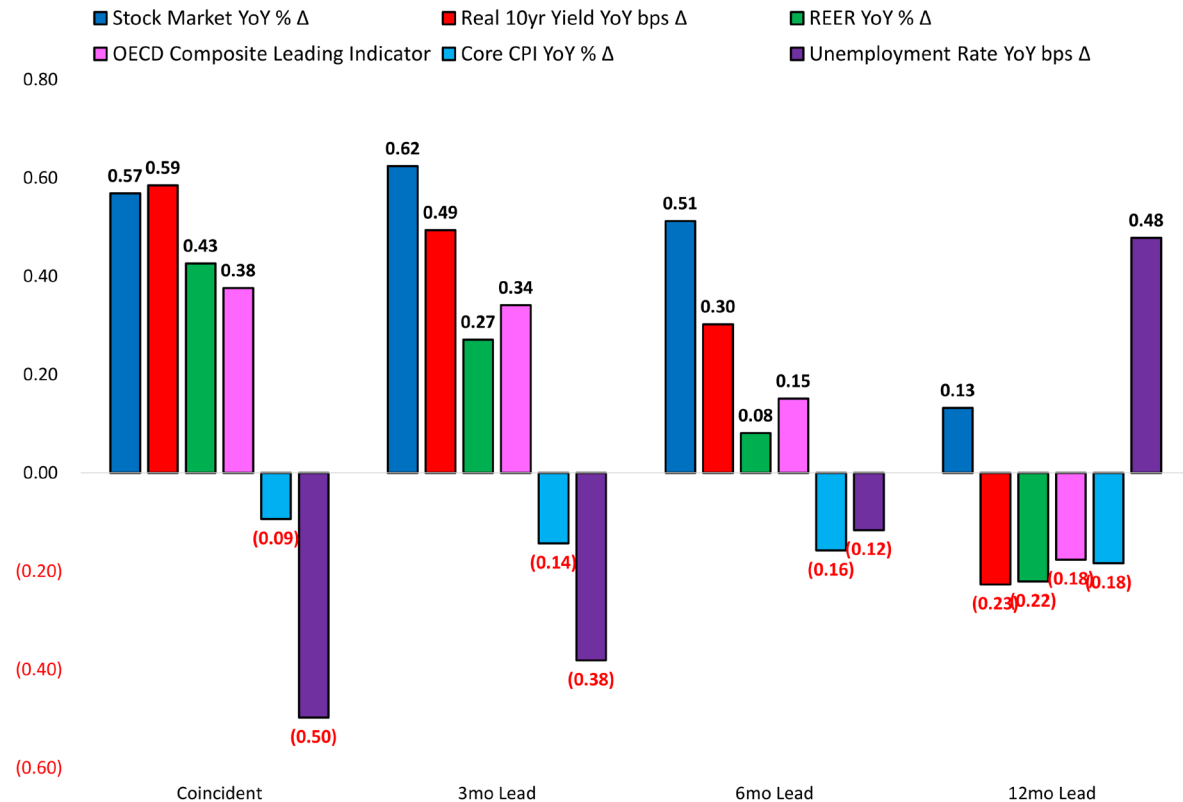


# Will **Japan** Increase Its Public Sector Liquidity Provision Over The Medium Term? **Perhaps**

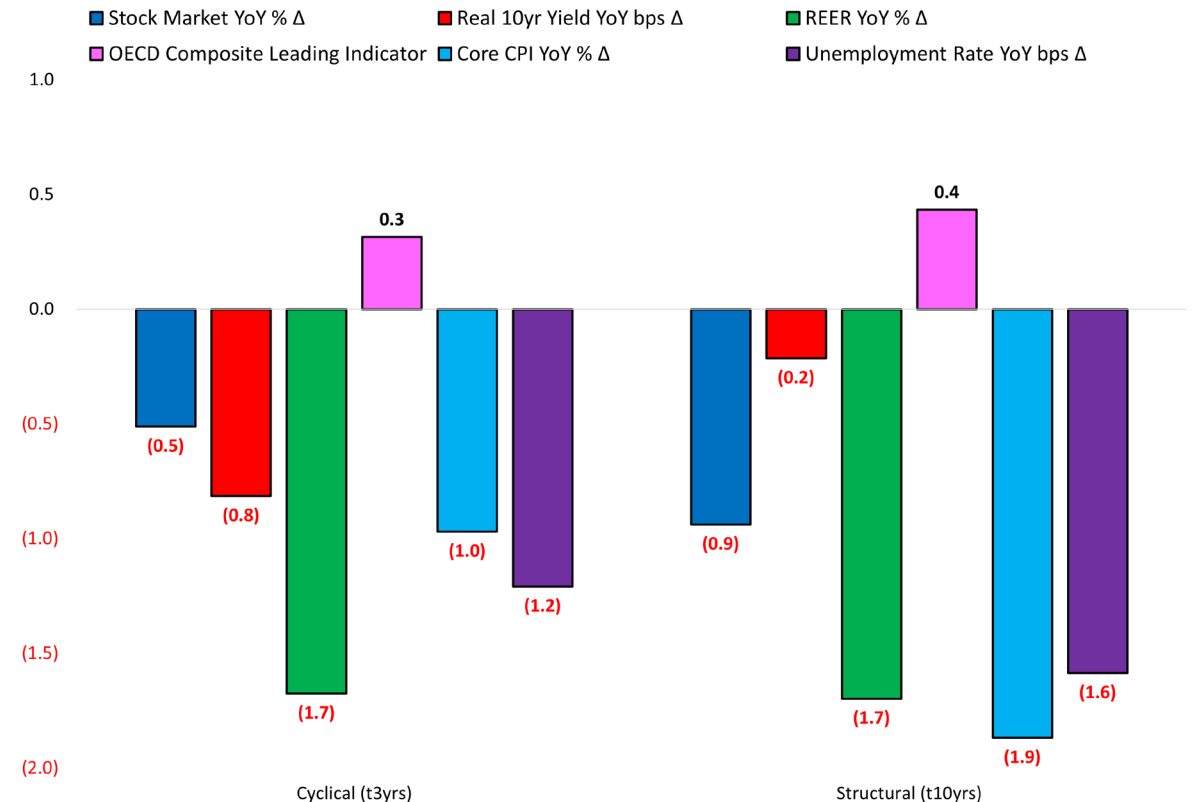


# Will **China** Dramatically Increase Its Public Sector Liquidity Provision Over The Medium Term? **Unlikely**

t10yr Correlation to the YoY % Change in the @42Macro China Liquidity Proxy



Z-Scores of Select Leading Indicators of the @42Macro China Liquidity Proxy



**Thanks for reviewing.  
See you next month!**

**42 Macro Product Walkthroughs:**

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

**42 Macro Playbook:**

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

**Intro to 42 Macro:**

**<https://bit.ly/3DcrL21>**