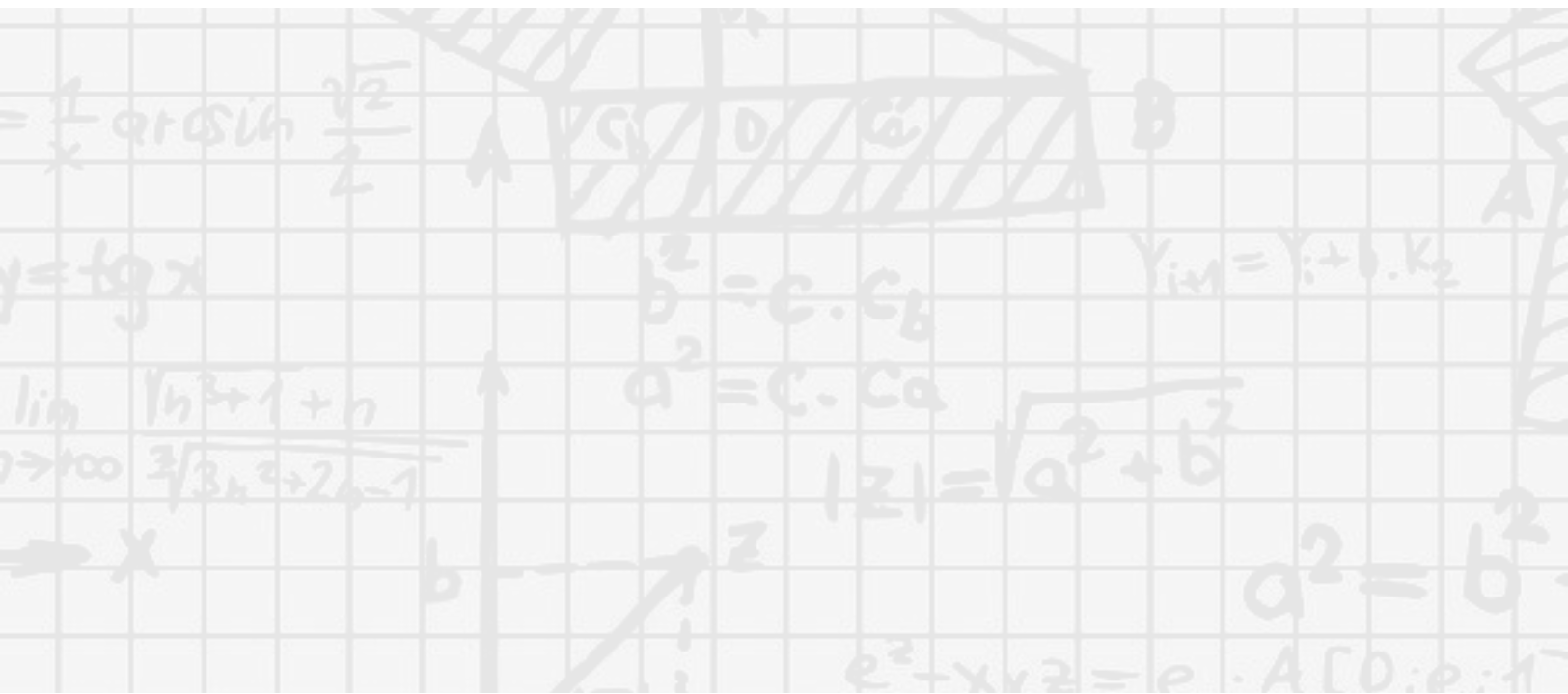


# Digital Asset Markets Report

July 2023



The S2F Intelligence report examines network fundamentals using on-chain analysis, technical tools, and proprietary indicators. We aim to provide insight into how digital assets perform during these unprecedented times. By recognizing trends in both momentum and volatility, we seek to identify opportunities while navigating uncertain market conditions.

## Macro Overview

- S&P500 and Dow indices are currently +21.1% and +6.7% YTD, respectively, while the NASDAQ is up 27.6%.
- The Fed raised interest rates by 25 bps at the July FOMC, bringing the Fed Funds rate to 5.25% - 5.5% - the highest since 2001.
- Headline June CPI data (Y/Y) was 3.0%, below economists' estimates of 3.1% and the lowest growth rate since March 2021. CPI (M/M) grew slower by 0.2% than the forecasted 0.3%.
- June job openings were 9.58 million vs. forecasted 9.61 million, while July ADP employment reported 324K jobs vs. 190K estimates.
- Core PCE, the Fed's preferred inflation metric, fell to 4.1%, just below economists' expectations of 4.2% - the lowest nominal level since September 2021.

## Macro Performance

Page 1

- Digital assets' total market cap traded near its March highs of \$1.26tn before closing July at \$1.14tn.
- GLD (Gold ETF) price action continues to consolidate within a sideways range while remaining positive +6.6% YTD.
- Global supply constraint led oil to its highest monthly gains since January 2022 - the price increased to \$79.16/barrel.
- The GSG commodity index reversed its downtrend in July, pivoting from negative territory -5.3% YTD to + 5.0 YTD.

## On-Chain Analysis

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- **Bitcoin Accumulation Window:** Optimal accumulation conditions occur when "STH Realized Price" falls below "LTH Realized Price". The previous accumulation window average was 238 days, but on March 29th, this cycle's window closed at 187 days.
- **Ethereum New Address Momentum:** The indicator helps identify current trends in new ETH addresses - currently, the 30D SMA of new addresses has risen above the 365d SMA of new addresses, which can potentially drive ETH prices higher.

## Technical Levels

Page 3

- **Bitcoin:** BTC declined by 4.4% in July and is attempting to find support at its 50d MA.
- **Ethereum:** The ETH/BTC ratio maintained its underperformance -13.1% YTD.

## Momentum & Sentiment

Pages 4-5

- **Alt-season Indicator:** The index remains within alt-season territory but is declining.
- **S2F Momentum Model:** The momentum model pivoted back into cash on the monthly close.
- **Delta Risk:** The indicator signals increasing risk-off conditions for BTC and ETH.

## Market Radar

Pages 6-7

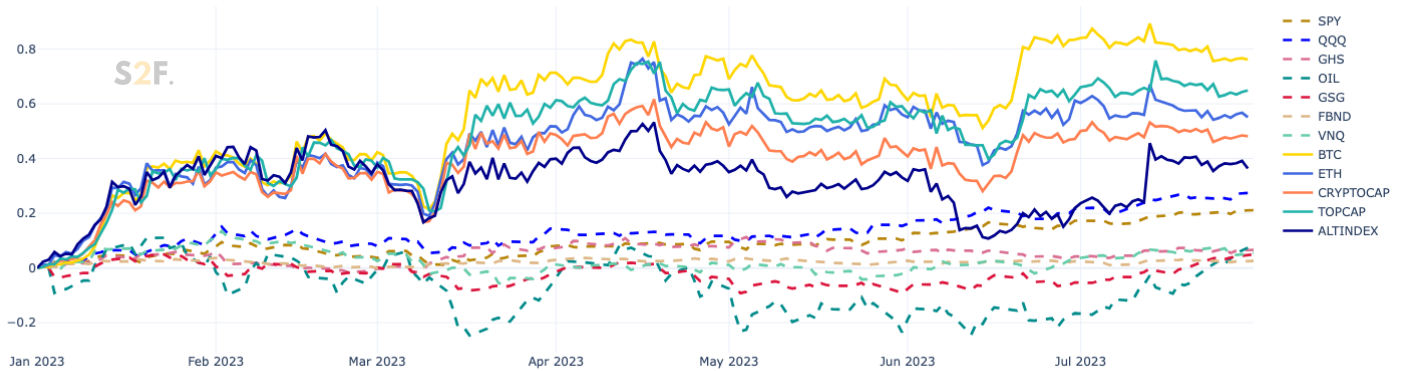
- **Recession Warning Signals Update:** The recession signal incorporates three indices (LEI, Aggregate, and Cyclical) - the second of three signals occurred in December. Still, the impact of unprecedented US economic stimulus may have delayed the warning signal #3 target period.
- **Soft Landing + FFR Forecast:** Restrictive policy positively impacted Y/Y CPI (9.1% -> 3.0%) while core CPI remains above Fed targets. Our timeline of upcoming macroeconomic data to watch over the next two months may offer guidance regarding the Fed's decision at the September FOMC meeting.
- **Economic Pulse and Labor Markets:** Examining Y/Y data trends across Consumer Loans, Credit Card Interest Rates, Money Market Funds, and Unemployment may gauge the progressive impacts of a rising FFR on the economy.

## Notable News

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- Bitcoin, Ethereum, Layer One, and Other Headlines.

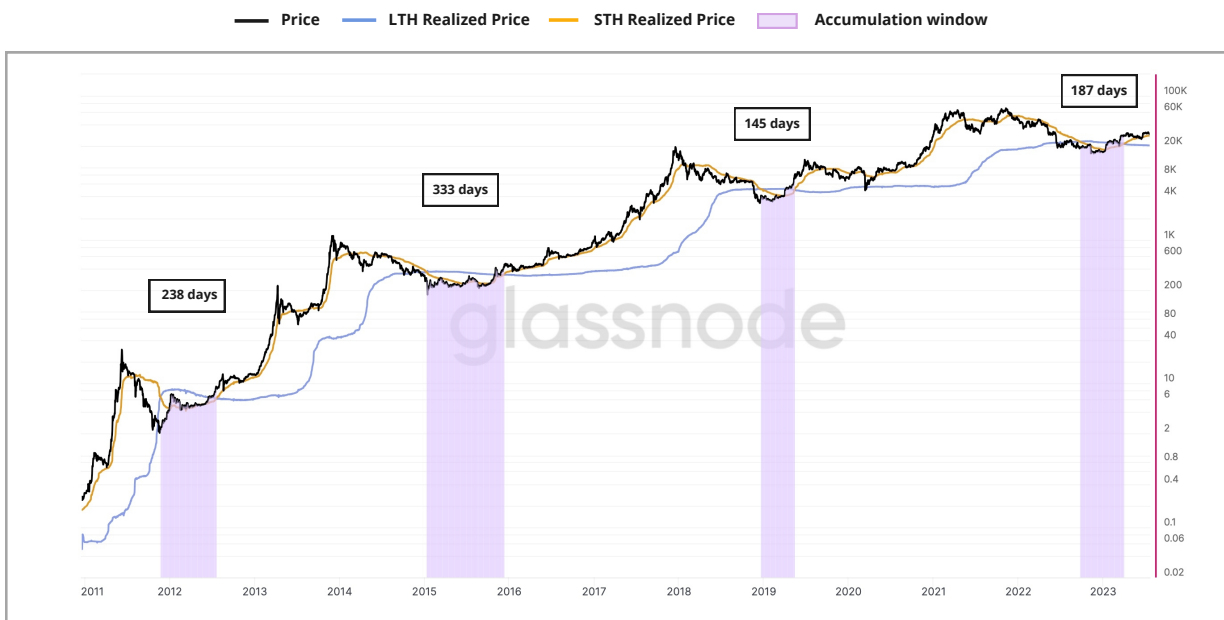
2023 Asset Returns



Asset	MtD*	QtD	YtD	Volatility (annualized)*	Sharpe (annualized)*	Correlation (to Bitcoin)**
Bitcoin	-4.4%	-4.4%	75.9%	0.46	1.51	1.00
Ethereum	-3.5%	-3.5%	54.6%	0.48	0.83	0.75
Altcoin Index	8.9%	8.9%	34.7%	0.53	0.05	0.22
TopCap	-1.5%	-1.5%	63.7%	0.45	1.08	0.83
CryptoCap	-1.3%	-1.3%	48.2%	0.46	0.66	0.92
SPY	3.2%	3.2%	21.1%	0.19	2.79	0.57
QQQ	4.6%	4.6%	27.6%	0.24	3.13	0.52
GLD	2.2%	2.2%	6.6%	0.17	1.79	-0.36
UCO	30.7%	30.7%	8.4%	0.73	0.30	0.35
FBND	0.4%	0.4%	2.5%	0.09	1.22	0.18
VNQ	1.0%	1.0%	5.4%	0.26	0.74	0.58
GSG	11.0%	11.0%	5.0%	0.25	-0.11	0.46

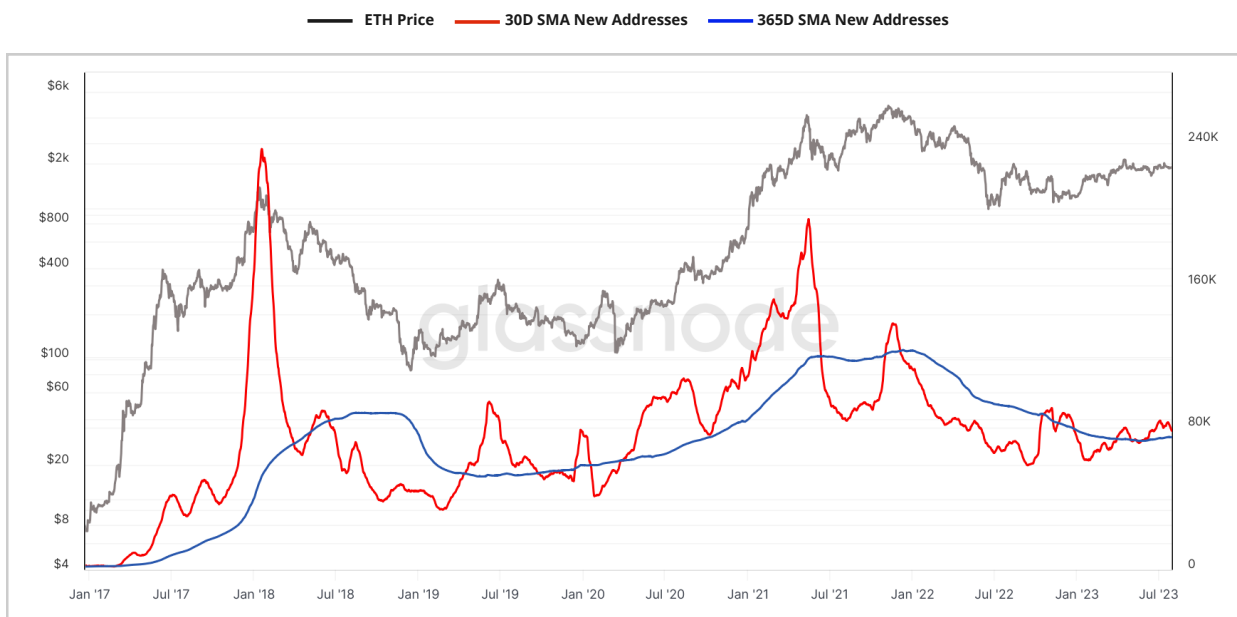
Sources: AlphaVantage, TradingView  
 Assets: SPY = S&P500, QQQ = NASDAQ, GLD = Gold, UCO = Crude Oil, FBND = Total Bond Market, VNQ = Vanguard Real Estate Index Fund ETF, GSG = S&P Commodity Indexed-Trust, S2FALTINDEX = Altcoin Index, TopCap = Marketcap of top 20 coins excluding stablecoins and wrapped tokens, CryptoCap = total crypto sector  
 \*as of July 31, 2023 - last 180 days  
 \*\*as of July 31, 2023 - last 90 days

## BTC Cost Accumulation Windows



- BTC Cost Accumulation indicator identifies historically optimal periods to accumulate. Conditions occur when short-term holder (155 days or less) realized cost basis (orange) falls below long-term holder (greater than 155 days) realized cost basis (blue).
- The average historical accumulation window was 238 days (purple) - the window closed on **March 29, 2023** and lasted **187 days**.

## ETH Address Momentum



- The ETH Address Momentum chart is helpful when identifying potential network trends. Currently, the 30D SMA of new addresses (red) is rising above its 365d SMA of new addresses (blue).
- When the 30d rate of onboarding new users > the yearly average can push ETH higher as the overall network value appreciates. L2 networks growth could be contributing to new user metrics - L2 TVL surpassed 5.8 million ETH (4.82% of total ETH supply) <sup>1</sup>

<sup>1</sup> L2Beat, Total Value Locked <https://l2beat.com/scaling/summary>

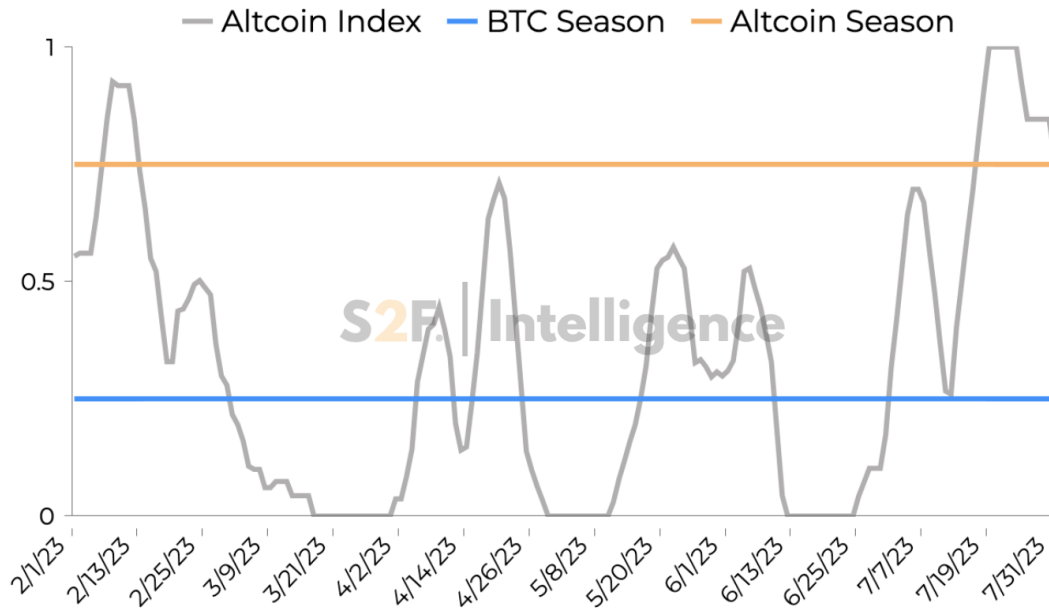
- After recovering in June, Bitcoin price fell 4.4% in July bringing 2023 YTD performance to 75%.
- Price is currently testing the **50d MA** (\$28.4k) with high volumes of support
- BTC is consolidating at previous monthly resistance while low timeframe support levels remain around the **50d MA**.



- Ethereum has continued to bounce **50d MA** as price consolidates around the \$1.8k range.
- The upper resistance level of ~\$2.1k has only been tested once this year and remains a long-term target.
- The ETH/BTC ratio continues its underperformance -13.1% YTD.

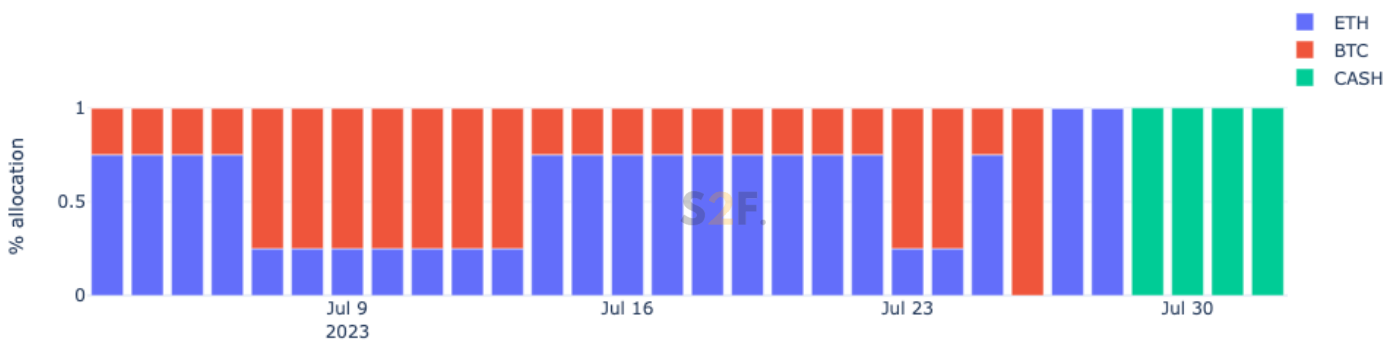


## S2F Alt-Season Indicator



The S2F Alt-Season Indicator is a proprietary model that measures the capital flows between Bitcoin and a basket of major Altcoins. This indicator is especially helpful in identifying where strength resides in the cycle and can potentially indicate what may happen next. When the Index line (gray) is below the orange line, it generally signals strong momentum favoring Bitcoin vs. Altcoins.

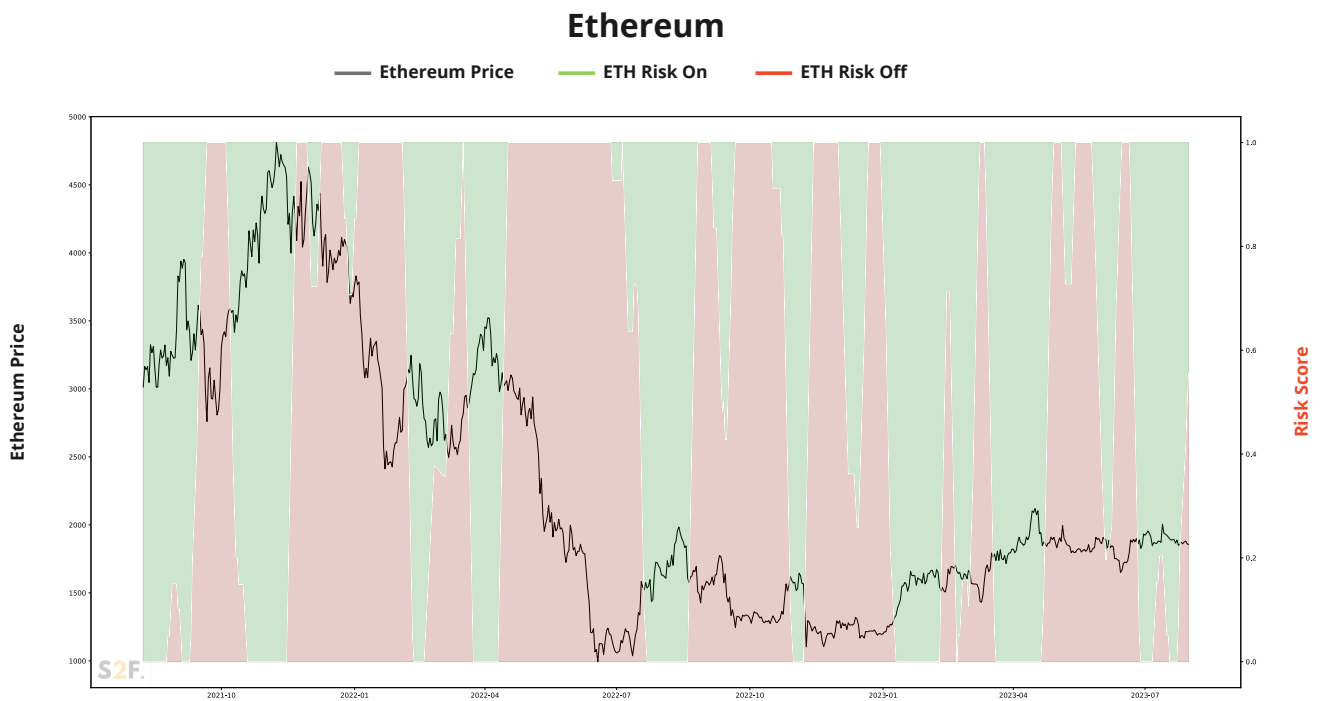
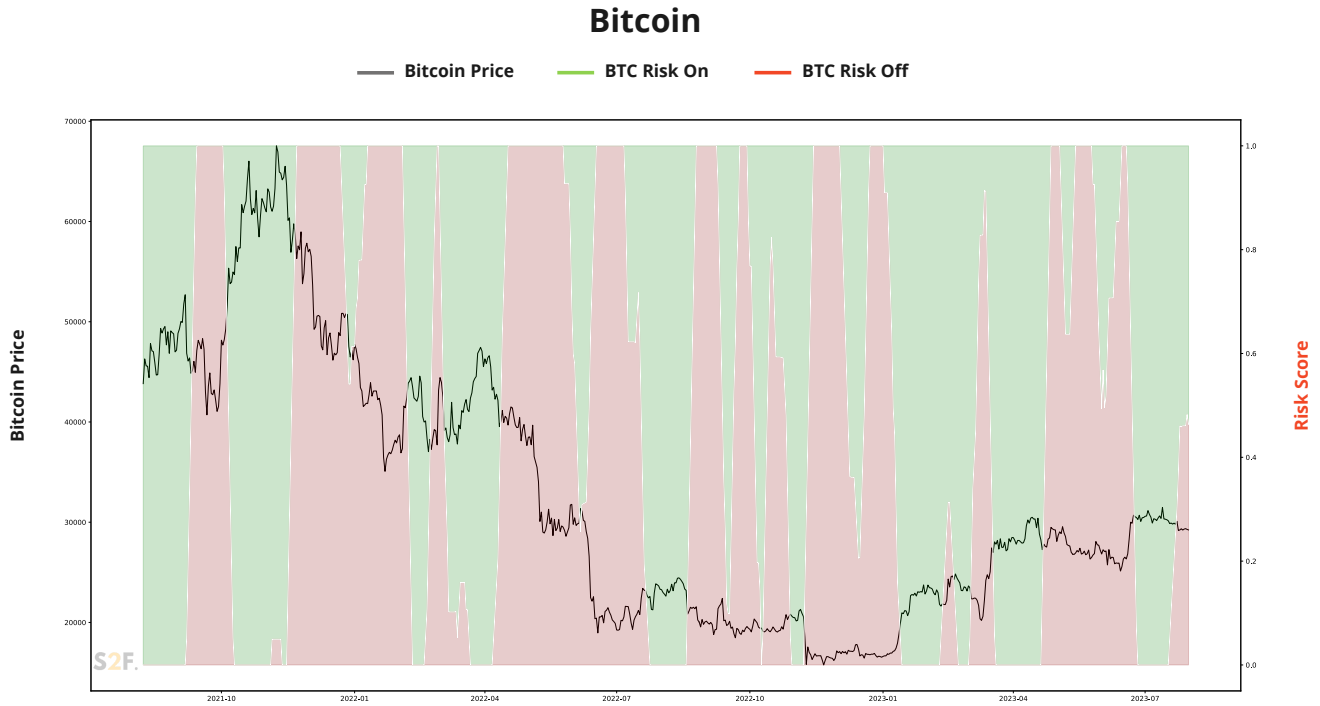
## S2F Momentum Model



The S2F Momentum Model is a proprietary model for portfolio optimization. The entry and exit signals rely on a risk indicator, while the ETH and BTC weights are based on price momentum. The chart above shows the suggested daily allocation over the last 30 days.

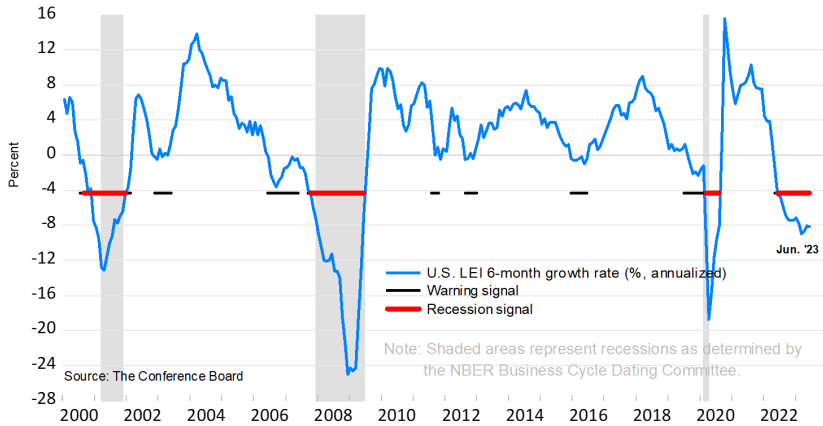
## Delta Risk Score

The Delta Risk Score is a proprietary model that measures the probability of an imminent retracement in price. The indicator's value oscillates between 0 and 1, with the former signaling low-risk (green) while the latter determines high-risk conditions (red). The chart below shows both indicators and the underlying asset's price (black line) since Q3 2021.



## Market Cycle Indices Update

In our April report, we discussed the Leading Economic Index (LEI) and the Aggregate and Cyclical Coincident Indices and how they could be useful for predicting a potential economic downturn, using three warning signals as a framework.



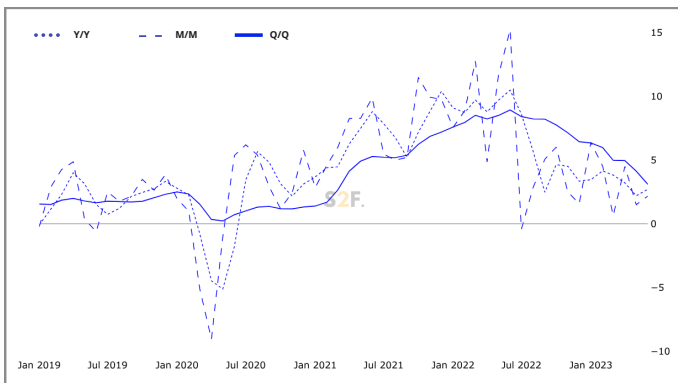
- The LEI (Leading Economic Index) declined for a 15th consecutive month in June- this trend marked the longest streak of consecutive decreases since 07-08. **LEI < 2% while Aggregate and Cyclical < 2% is the first warning signal and it occurred in May 2022.**
- The Conference Board forecasts a recession from Q3 2023 to Q1 2024 for the US economy spurred on by elevated prices, tighter credit conditions, and reduced government spending (Conference Board press release, July 20, 2023).

- The second warning signal occurred last December when **LEI < -1% and Aggregate and Cyclical remaining < 2%.**
- The third and last signal (all the three indices in negative territory), occurs on average six months after the second, so it was "scheduled" to happen last June.
- However, the **unprecedented US economic stimulus reverb could have caused strong economic resilience and, consequently, slightly delayed the target period for warning signal #3.**

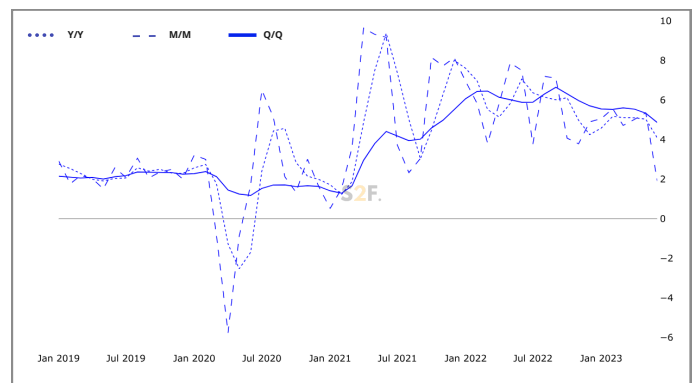
## Soft Landing

As referenced in the January report, the "soft landing" scenario would rely on the Fed's ability to balance their dual mandate: engineering conditions to accommodate maximum employment or the lowest unemployment levels possible while maintaining stable prices.

### CPI



### Core CPI

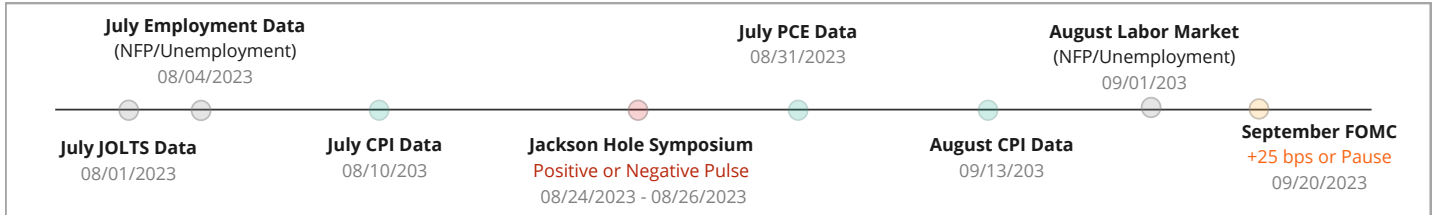


- While the historical rate of interest rate increases generated significant market volatility, the restrictive policy has positively impacted Y/Y headline CPI (9.1% -> 3.0%) - recent June data showed the lowest rate of inflation since Q1 2021. Core CPI also remains elevated and above Fed target.
- Current economic conditions appear to be in line with the soft landing scenario discussed several times by the Fed Chair Jerome Powell.



## Fed Terminal Rate Forecast

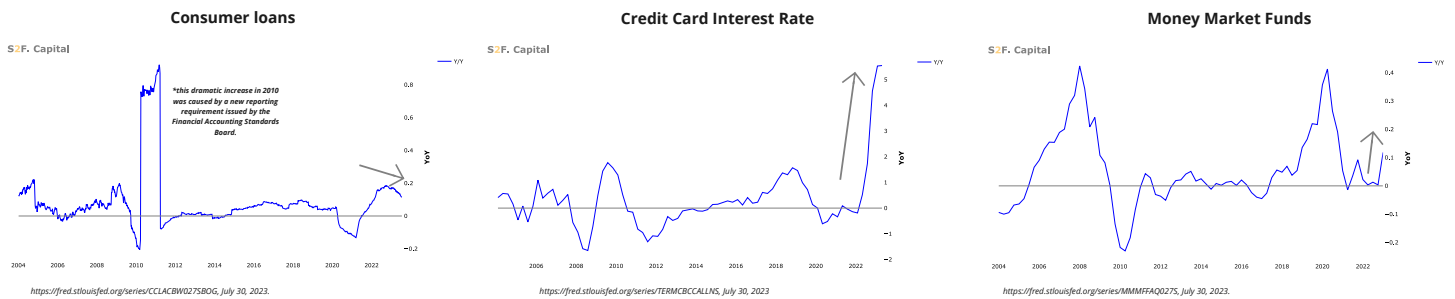
At the July FOMC, Fed Chair Powell referenced progress on the disinflationary front that could allow the Fed to be patient with policy moving forward. Unlike prior FOMC conferences, his language was opaque when asked about the near-term outlook for the terminal Fed Funds rate. Below is a timeline of upcoming macroeconomic events that can provide guidance until September's FOMC:



The annual Jackson Hole Symposium in August will clarify which way Fed is leaning. Ultimately, aggregate labor market and inflation data results will determine the likelihood of pausing or hiking in September and November FOMC meetings.

## Current Economic Pulse

The Federal Reserve believes the full effects of their restrictive monetary policy has not yet been fully felt by the economy. We gauged the progressive impact rates have had by examining Y/Y data trends across Consumer Loans, Credit Card Interest Rates, and Money Market Funds.

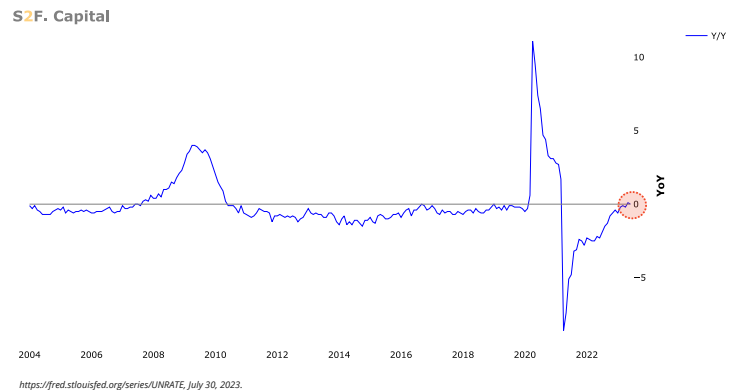


- US Q2 GDP data came in at 0.6%, above economist's expectations of 0.45% - projecting an annualized GDP growth rate of 2.4% vs. 1.8%.
- While unanticipated economic strength continues, elevated rates have caused a significant growth in credit card interest rate and subsequent compression in consumer loans, while stimulating the inflow of capital into Money Market Funds.

## Labor Market Outlook

In the interim between now and the September FOMC, labor market reports could potentially be weighed more heavily by markets.

- Softening of demand in job markets highlighted by a gradual decline in available openings and normalization in quits data may spill over into unemployment data.
- Y/Y unemployment growth can influence consumers' purchasing power leading to an unwillingness to spend impacting earnings.
- While the risk of a resurgence in inflationary data remains, labor markets are becoming the lynchpin for investors to monitor.



## Bitcoin

- U.S. Securities and Exchange Commission (SEC) officially accepts applications to create spot bitcoin exchange-traded funds from six firms, including BlackRock (BLK.N).
- Layer 2 smart contract network Stacks (STX) built on top of Bitcoin achieved a new ATH of 56.4 million STX in TVL due to new bridges with Ethereum and BNB, ALEX B20, and sUSDT.
- Former SEC Chair shares opinion on spot BTC filings filings "If they're right that the spot market has similar efficacy to the futures market, it would be hard to resist approving a bitcoin ETF," Clayton said.<sup>1</sup>
- U.S. Democratic presidential candidate Robert F. Kennedy Jr. shares plan to use Bitcoin to help stabilize US dollar as well as make Bitcoin profits exempt from capital gains tax.

## Ethereum

- Previously alternative L1 Celo blockchain (CELO) recently leveraged the OP tech stack to convert its blockchain into an L2 rollup on Ethereum.<sup>2</sup>
- zkSync Era unveils their new L2 proof system called Boojum - the STARK-powered proof system is capable of being run on consumer-grade GPU hardware.
- EigenLayer increases its restaking cap for liquid staking tokens (LSTs) to 30,000 LSTs - the protocol deposit ceiling was filled within minutes of the deposit cap being raised.<sup>3</sup>
- More than 22.4 million ETH (\$41 billion) is currently staked - 18.67% of total circulating supply.

## Layer 1's

- Solana (SOL) reveals Solang, a new compiler that enables developers to write smart contracts on Solana in Solidity - the rollout enhances Ethereum compatibility.
- US exchanges, including Coinbase and Kraken, relist XRP after the presiding judge issued a summary judgment between Ripple Labs v. SEC - ruling found that the sale of tokens on secondary markets did not constitute the buying and selling of unregistered securities.<sup>4</sup>
- Binance (BNB) protocol completed its "ZhangHeng" hard fork on July 19th - the network upgrade includes a feature that now allows for a freezing of the blockchain.
- At Ethereum Community Conference (EthCC), the Tezos (XTZ) blockchain announced their new EVM-compatible L2 Etherlink, which offers settlement on-chain while scaling their network.

## Other Headlines

- House Financial Services Committee advanced the FIT for the 21st Century Act, which passed with a bipartisan vote of 35 to 15. The act aims to clarify regulation within the digital asset sector while creating consumer protection and will be voted on by the House Committee of Agriculture.<sup>5</sup>
- Leading data oracle network Chainlink (LINK) announced the launch of its Cross-Chain Interoperability Protocol (CCIP) mainnet. CCIP aims to facilitate communication between currently segregated blockchain networks.
- The Texas State Securities Board issued a cease and desist letter to lending platform ABRA which regulators say has been insolvent since March 31, 2023.
- Coinbase discloses that the SEC requested the trading operator to halt trading in all digital assets except Bitcoin before enforcing regulatory action against the exchange.

<sup>1</sup> The Block, Former SEC chair says bitcoin ETF approval 'hard to resist' if 'efficacy' proven <https://www.theblock.co/post/238701/former-sec-chair-says-bitcoin-etf-approval-hard-to-resist-if-efficacy-proven>

<sup>2</sup> CoinTelegraph, Celo blockchain proposes return to Ethereum ecosystem, transition to L2 <https://blockworks.co/news/eigenlayer-deploys-on-ethereum-mainnet>

<sup>3</sup> Defiant, EigenLayer Attracts Over 30,000 ETH Just Minutes After Raising Deposit Caps <https://thedefiant.io/eigenlayer-attracts-over-30-000-eth-just-minutes-after-raising-deposit-caps>

<sup>4</sup> Yahoo Finance, Ripple effect: Coinbase and Kraken among exchanges to relist XRP after court ruling vs. SEC <https://finance.yahoo.com/news/ripple-effect-coinbase-kraken-among-211810960.html>

<sup>5</sup> Warren Davidson Press Releases, Digital Asset Legislation Passes House Financial Services Committee <https://davidson.house.gov/2023/7/digital-assets-legislation-passes-house-financial-services-committee>

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