

Key Takeaways

- Bitcoin price correlations to external macro factors remain significant
- Extreme bear market lows have found support at the 200-week moving average
- Bitcoin hash rate continues to rise, suggestive of positive mining profitability

Weekly Thoughts

Downside Bitcoin price volatility expansion has begun in the setting of continued declines across global equities markets. Multifactorial sentiment analysis by alternative.me suggests extreme fear in the current Bitcoin price environment. Despite significant bearish price action over the past week, Bitcoin continues to hold within the 2021 price range, from \$30,000 to \$60,000. Technical price bias remains strongly bearish with prices below the 20-week moving average and 200-day moving average, both historically strong gauges of trend. Since 2013, the zone between the 2-year moving average and 200-week moving average has been suggestive of oversold conditions. Furthermore, since 2014, all bear market lows have found support at the 200-week moving average, which has continued to climb in recent months and now sits at \$21,800.

Bitcoin's monthly average hash rate continues to reach for all-time highs, remaining price agnostic thus far. This suggests miners continue to find profitable rates for electricity relative to costs. There are also three new ASICs with increased efficiency set for release in July this year, which will likely continue to push hash rate higher. Although many variables determine mining profitability, even with electricity costs at 5 cents per kilowatt hour, 2016 and 2017 ASIC models are still profitable in the current network environment and Bitcoin price.

Bitcoin Fear and Greed Index Multifactorial Market Sentiment Analysis 250EH/s

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Last Week:



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Annualized Returns (%) M Cap (bn) Issuance (%) Stake Yield (%) Volatility **Crypto** Ticker Price (\$) 1 week 1 month 3 month **YTD** 1 year Sharpe Bitcoin BTC 33273.10 -3.16 -12.48 -25.25 -28.69 -41.02 627.26 1.77 0.73 -0.37 N/A ETH 2432.46 -4.37 -11.66 -22.77-34.45 -39.00 290.83 4.13* N/A* 0.95 0.09 **Ethereum** Binance Coin BNB 339.60 -6.44 -11.79 -18.51 -47.34 54.34 -34.91 0.00 7.12 0.99 -0.10 73.01 -15.80 -37.23 -58.07 65.96 23.99 4.46 1.35 SOL -5.41 5.44 1.07 Solana **Avalanche AVAX** 49.88 -4.76 -13.81 -43.14 -55.05 41.63 13.22 5.29 9.02 1.43 1.00 Polkadot 12.38 -9.75 -44.80 -67.29 11.80 13.99 1.28 -0.18 DOT -17.60 -55.13 8.09 M Tron TRX 0.08 -11.05 24.67 14.71 4.14 -38.18 7.73 1.72 4.83 1.00 0.02 **Polygon** 0.92 1.57 MATIC -8.50 -13.46 -54.04 -64.57 1.90 7.02 4.44 6.22 0.92 **Algorand ALGO** 0.69 17.01 -35.14 -51.52 7.17 1.30 -8.69 -59.90 4.53 3.11 0.15 15.07 Cosmos **ATOM** -5.89 -17.15 -51.38 -54.30 -41.60 4.24 10.53 15.66 1.46 0.36 9 LUNA 8.85 -91.17 -92.73 -89.17 -93.36 -61.20 3.01 1.14 5.66 1.80 1.29 Terra 0.64 -8.98 -19.13 8.38 1.73 **Fantom** FTM -7.80 -71.70 -72.25 1.59 5.82 0.78 0.07 11.28 Zilliga ZIL -4.44 2.08 32.87 -1.35 -64.49 0.94 13.95 1.83 0.14 **-DASH** 80.34 -78.80 2.85 5.99 -0.68 Dash -4.96 -7.17-30.09 -41.05 0.84 1.18





Bitcoin Moving Averages





1 year

-2.58

-7.48

-19.02

-5.40

66.17

62.15

166.12

75.28

1.74

-19.40

-10.99

8.83

53.53

36.26

-41.02

Key Takeaways

- Inflationary fears and uncertainties remain top of mind for investors
- The S&P 500 and Nasdag continue to show shades of risk-off sentiment
- CPI released today at 8.3%, higher than the expected 8.1%

Macro Commentary

Inflationary fears firmly grasped markets last week sending equities notably lower with potential of more selling in the near term. As expected, the Federal Open Markets Committee raised rates 50 basis points last week, in addition to introducing the strategy on the balance sheet reduction program that would start in June with an initial runoff amount of \$47.5 Billion per month, then ramping up to \$95 Billion after three months. Runoff would be about two-thirds treasuries and one-third mortgages. Comments made by Fed Chairman Powell after the announcement struck down the possibility of 75 basis point hikes for now which provided enough positivity sentiment for the day and drove equity markets higher and interest rates lower. Optimism was short lived as investors digested the Fed's actions and comments and sent markets lower for the remainder of the week.

Risk off sentiment followed through the weekend as the S&P 500 breached the 4,000 point index level, down about 16% year to date. Technology heavy Nasdag Composite declined just over 4% intraday Monday as pandemic related tech fads seem to have waned. Nasdaq down about 25% now year to date. The 10year treasury yield experienced some volatility following the Fed meeting with the yield jumping past the 3% level after the trading in range earlier in the week. Monday saw a notable rise to 3.2% before retreating to 3% Tuesday.

The unemployment rate released Friday was unchanged from last month at 3.6%, while the US economy added 428,000 jobs, higher than surveyed expectations. A key indicator to watch this week is the Consumer Price Index or CPI. The year over year inflation related metric rose only slightly last month, which strategists saw as a possible sign of a plateau forming in the near term. CPI was released today with an 8.3% print, higher than the expected 8.1% level which may have indicated a declining trend. Investors hope for a clearer picture on inflation as the Fed moves ahead with a more aggressive tactic than in previous cycles.

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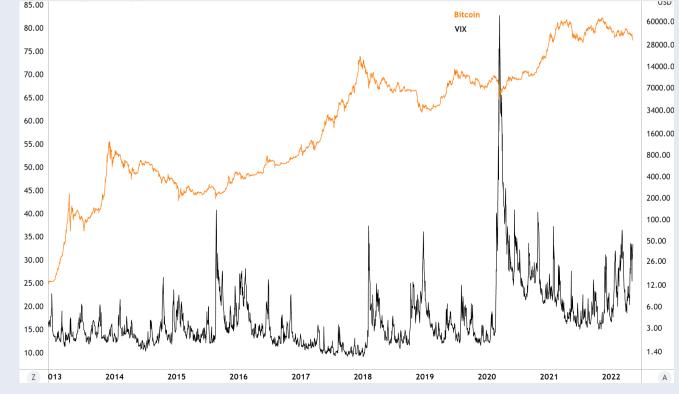
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					Returns (%)		
Indices	Ticker	Price (\$)	1 week	1 month	3 month	YTD	
S&P 500	SPX	4123	-0.21	-8.13	-8.38	-13.4	
Nasdaq 100	NDX	12693	-1.25	-11.40	-13.62	-22.2	
Russell 2000	RUT	1839	-1.32	-7.77	-8.13	-18.0	
Dow Jones Ind.	DJI	32899	-0.24	-5.25	-6.24	-9.46	
Commodities							
Crude Oil	CL1	107.84	2.62	13.27	17.66	42.89	
Brent Crude	BRN00	110.57	2.72	11.34	19.01	41.93	
Natural Gas	NG00	7.76	1.72	15.87	81.64	116.6	
Unleaded Gas	RB00	3.73	7.06	23.57	38.65	68.28	
Gold	GC00	1838.50	0.29	-4.54	2.60	2.08	
Silver	SI00	22.07	-2.69	-12.57	-4.13	-5.48	
Copper	HG00	4.18	-2.45	-9.77	-6.82	-6.32	
Corn	C00	776.25	-3.48	1.54	21.96	31.01	
Wheat	W00	1118.50	6.25	3.52	45.26	45.21	
Bloomberg Commodity Index	ВСОМ	127.66	-1.41	0.98	16.57	28.80	

Bitcoin



News Review

- Bitcoin-Hoarding Miners Turn to Options Market for Cash
- What Mining Moratorium Could Really Mean for New York's Crypto Industry
- Bitcoin Proponents Rally to Oppose New York Mining
- Miner Riot Blockchain Sells Nearly Half of April's Bitcoin
 Production Production
- Miner Marathon Digital May Start to Sell Some of Its Bitcoin to Reach Growth Objectives
- Cipher Mining, WindHQ Joint Venture Secures \$46.9M Loan
 From Blocks From BlockFi
- The Future of Energy Markets According to Bitcoin Miners
- Argentina's Largest Private Bank to Offer Bitcoin, **Ethereum Trading**
- LGT, World's Largest Family-Owned Private Bank, to Offer <u>Crypto Custody and Brokerage Services</u>
- Virginia Pension Funds Mull Investing in Crypto 'Yield Farming' Farming'
- Coinbase Is on Other Side of Goldman's First Bitcoin-Backed Loan Backed Loan
- Jane Street Dives Into DeFi With \$25 million Stablecoin Loan via USDC via USDC
- Starbucks to Launch NFTs This Year, Offering Access to 'Unique Experiences and Benefits'
- California Governor Signs Executive Order to Spur Crypto Industry in the State



Stablecoin Origins & Purpose

Stablecoins are a sector of cryptocurrencies which attempt to peg value to \$1, typically using an external reference, such as USD or EUR. The main types of stablecoins include; fiat-backed, crypto-backed, algorithmic, or hybrid collateralization.

Tether (USDT) was initially created in 2014 to act as a potential hedge against market volatility, as well as increasing the transferability and convertibility of fiat currencies to cryptocurrencies. Tether's usage and supply grew substantially throughout the 2017 Bitcoin bull run, which significantly increased adoption of USDT trading pairs on crypto exchanges. As scrutiny increased over Tether's reserves, competing projects like Circle's USD Coin (USDC) arose with a focus on increased transparency. Today, most fiat-backed stablecoins, including Tether, release monthly reserve attestations.

Fiat-Backed

The two largest stablecoins by circulating supply, USDT and USDC, are both backed by USD reserves and/or USD equivalents held in third-party financial institutions. Issuing these types of stablecoins directly from the servicer also requires KYC/AML compliance and minimum capital requirements.

Crypto-Backed

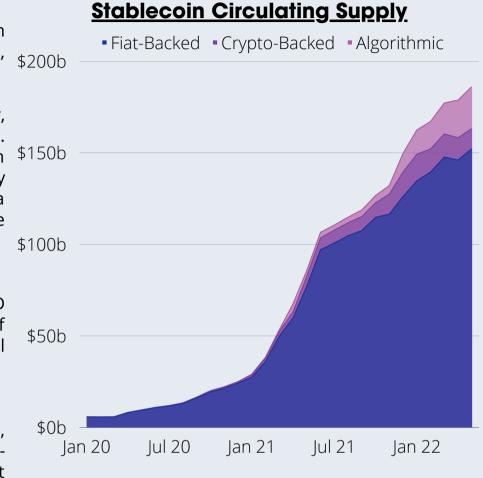
Crypto-collateralized stablecoins require on-chain management with the use of smart contracts, which also allows for 100% transparency of reserves and collateralization levels. Most crypto-backed stablecoins do not have KYC/AML or minimum capital requirements for initialization but do require overcollaterization of loans to buffer against market volatility. If these loans fall below the required collaterization level, they are liquidated.

Algorithmic

Of all stablecoin types, algorithmic or seigniorage-style stablecoins have had the most difficulty maintaining a \$1 peg, historically. This stablecoin type does not require collateral and are managed on-chain via smart contracts. Algorithmic stablecoins will increase or decrease the circulating supply to maintain stablecoin value.

Terra and UST De-pegging Event

Over the past few days, as digital asset prices turned increasingly bearish, the UST \$1 peg for Terra's algorithmic stablecoin began to slip below \$1. Theoretically, in this scenario, UST is burned (sent to an irretrievable address) and LUNA is minted in order to correct the UST target price of \$1. The Terra and UST ecosystem had minted nearly 20 billion tokens over the past few months, in large part due to the 20% APY incentives on Terra's lending and borrowing platform, Anchor Protocol. As destabilization of the equilibrium began, UST selling pressure far outpaced the ability of Terra to course correct the peg price. Terra had prepared for this possibility occurring and had acquired over \$3 billion in a mixture of USDC, USDT, Bitcoin, and Avalanche in recent weeks to act as an additional backstop in the event of a de-pegging death spiral. Unfortunately, even these reserves have been unable to hold UST near the \$1 price as a greater amount of UST was exiting the ecosystem while the Terra price was also decreasing.



Stablecoin Net Exchange Flow

\$1,000m



Fiat-Backed	Ticker	Supply (\$, bn)	Launch	Chain
Tether	USDT	83.22	Sept '14	Multi
(\$) Circle	USDC	48.56	Sept '18	Multi
Binance	BUSD	17.51	Sept '19	Multi
TrueUSD	TUSD	1.30	Jan '18	Multi
Paxos	USDP	0.94	Sept '18	ETH, BSC
S Huobi	HUSD	0.31	Nov '18	ETH, SOL
Gemini	GUSD	0.20	Sept '18	ETH

Crypto-Backed

MakerDAO	DAI	8.36	Dec '17	Multi
Abracadabra	MIM	2.10	May '21	Multi
Liquity	LUSD	0.46	Apr '21	ETH
\$ Synthetix	sUSD	0.13	Dec '18	ETH, FTM
\$ mStable	mUSD	0.06	May '20	ETH

Algorithmic

TerraUSD	UST	18.67	Sept '20	Multi
Frax	FRAX	2.63	Dec '20	Multi
Neutrino	USDN	0.94	Oct '19	Multi
Fei USD	FEI	0.57	Dec '20	ETH



Weekly Thoughts: Source: Valkyrie Investments, Inc.

Stablecoin Origins & Purpose, Fiat-Backed, Crypto-Backed, Algorithmic, Terra and UST De-pegging Event: Valkyrie Investments, Inc., Tether Operations, CoinMetrics, Circle, and Paxos

Macro Commentary: Source: Valkyrie Investments, Inc.

Coin Prices, Market Capitalizations, and Returns: Source: Valkyrie Investments, Inc., TradingView, Messari. All returns represent total return for stated period. Coin Logos: Source: cryptologos.cc

Annualized Issuance, Staking Yield, Volatility, and Sharpe Ratio: Source: Valkyrie Investments, Inc., Messari, StakingRewards.com. *ETH's EIP-1559 token burn and ETH-2 staking not included.

Bitcoin Fear and Greed Index Source: Valkyrie Investments, Inc., alternative.me and represents a multifactorial sentiment analysis index of volatility, market momentum and volume, social media, bitcoin market cap dominance, and Google trends

Bitcoin Monthly Average Hashrate, Bitcoin 30-Day Rolling Volatility: Source: Valkyrie Investments, Inc., CoinMetrics

Bitcoin Weekly Moving Averages: Source: Valkyrie Investments, Inc., TradingView - INDEX:BTCUSD

Stablecoin Circulating Supply: Source: Valkyrie Investments, CoinMetrics, The Block, and CoinGecko

Stablecoin Net Exchange Flow: Source: Valkyrie Investments, Inc., Nansen and represent wallet inflows and outflows of Tether, USD Coin, discussed in this document and other statements made from time to time by us or our representatives might Binance USD, PAX, and Huobi USD through crypto exchanges, including but not limited to; Binance, Curve.fi, AnySwap, Crypto.com, not occur.

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List and examples shown in the Stablecoin table are non-exhaustive, intended for illustrative purposes only. Chain data sourced from CoinMarketCap. "Multi" description can include Ethereum, Solana, Binance Smart Chain, Algorand, Tron, Fantom, Polygon, Avalanche, Arbitrum, Secret, Terra, Moonriver, Velas, and Harmony. Coin Logos: Source: cryptologos.cc

"Indicies" prices and returns: Source: Valkyrie Investments, Inc., MarketWatch. "S&P 500" provided by Standard & Poor's and is a stock market index tracking the performance of 500 large companies listed on stock exchanges in the United States, "Nasdaq 100" provided by NASDAQ OMX Group and includes 100 of the largest domestic and international non-financial companies listed on the Nasdaq Stock Market based on market capitalization. "Russell 2000" provided by FTSE Russell and is a small-cap stock market index that makes up the smallest 2,000 stocks in the Russell 3000 Index. "Dow Jones Ind." provided by S&P Dow Jones Indices and is a price-weighted measurement stock market index of 30 prominent companies listed on stock exchanges in the United States. "Gold" provided by NYMEX - CME Group and is a continuous futures product. All returns represent total return for stated period.

"Commodities" prices and returns: Source: Valkyrie Investments, Inc., Wall Street Journal. Bloomberg Commodity Index provided by Bloomberg and tracks prices of futures contracts on physical commodities on the commodity markets. All returns represent total return for stated period.

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