



Another week and another decline for risk assets is not enough to stop the broader fundamentals from improving; last week, 44 countries met to discuss financial inclusion, with bitcoin a key topic in this regard

KEY TAKEAWAYS

- + Digital assets experienced some calm after the Luna storm (BTC -3.6%, ETH -5.8%) despite continued weakness in equities (Nasdaq -3.8%, with the Dow's eight week losing streak the first since 1923)
- + Last week, 44 countries met in El Salvador to discuss financial inclusion and of course, bitcoin was a key topic
- + Despite weakness in price, hash rate shows strength: the amount of aggregate computing power continues to reach new highs
- + Bitcoin's put/call ratio reached 1.43 last week, a 12-month high and another indication of extreme pessimism

THE BIRD'S EYE VIEW

Another week and another decline for risk assets. Both digital assets and the S&P 500 have faced seven straight weeks of declines on the same uncertainties relating to monetary policy, inflation, and the potential for a hard-landing.

In fact, this market environment is so extraordinary, that the eight-week losing streak in the Dow Jones Industrial Average is the first occurrence since 1923, nearly 100 years ago.

So, while bitcoin and digital assets show some calm after the Luna storm, they continue to weather a significant macro environment. Bitcoin, despite being down 35.5% year-to-date, continues to trade around the \$30,000 level, a key support when considering 2020's close of \$28,996.

Participants have become increasingly bearish as prices persistently move lower, with bitcoin and ether off 55.8% and 58.2% from 52-week highs, while the S&P 500 and the Nasdaq are off 18.7% and 29.3%, respectively.

However, this market volatility under the surface has improved some macro indicators that are key worries for market participants, such as inflation expectations (the 2yr US breakeven has declined from 4.9% to now 3.9%, the strength of the dollar (DXY index for now has topped at 105.0, closing Monday at 102.8), and the VIX, which has yet to put in new highs.

And as we've recently pointed out, for bitcoin, some capitulation has begun - for example, the entity-adjusted Spent Output Profit Ratio reached 0.85 two weeks ago, noted in our "capitulation" commentary found [here](#). Further, bitcoin investors took on-chain realized losses of \$3.3 bn amid the Luna collapse, the third highest on-chain loss in bitcoin's history.

Last week, bitcoin's put/call ratio, discussed on pg. 2, reached 12-month highs, serving as another near-term contrarian signal in a world of macro pessimism.

And while risks and uncertainties remain on the horizon, such as the potential for a hard-landing, the official beginning of QT, and growing calls for a full-blown recession, bitcoin continues to move forward, block by block, day by day. Hash rate, or the computing power used to mine bitcoin and maintain security, reached new highs last week, also discussed on pg. 2.

And so, the fundamentals for bitcoin and digital assets continue to strengthen even amidst a macro storm. Institutional interest and portfolio adoption, alongside longer holding trends, lightning network's ability as a medium of exchange, continued clarity in US regulation (Senator Lummis proposal should come this week), Ethereum's upcoming merge, and the possibility of further legal tender status for bitcoin across the globe are just some of the many reasons to zoom out and appreciate the big picture of this emerging technology.

FINANCIAL INCLUSION

In what may be viewed in retrospect as a hallmark event, 44 countries met in El Salvador last week as part of the Alliance for Financial Inclusion (AFI). After a two-year pause due to Covid, countries were eager to meet and discuss topics related to banking the unbanked. Naturally, bitcoin, legal tender status, and lightning network were key topics in the overall broader discussions.

Currently, just two countries label bitcoin as legal tender – El Salvador and Central African Republic. These countries thus far have received both praise and criticism for this, just as pioneers often do.

But it's clear that bitcoin, a censorship-resistant, stateless, and easy to use asset offers those without bank accounts the ability to store value and transact as a medium of exchange. 44 countries now gained first-hand experiences of how this is possible, which could ultimately lead to significant adoption in these under-banked countries.



HASH RATE HITS NEW HIGHS

Despite weakness in price, the underlying fundamentals continue to strengthen. Here, we illustrate Hash Rate, or the aggregate amount of computing power used by bitcoin miners, reaching new all-time-highs of 220 EH/s.

This has two key takeaways: first, as mining is a capital-intensive process, a rise in hash rate illustrates strong desire (corporate and individual) to own bitcoin through block rewards. As capital continues to flow towards bitcoin mining, this illustrates growing interest in the Bitcoin network.

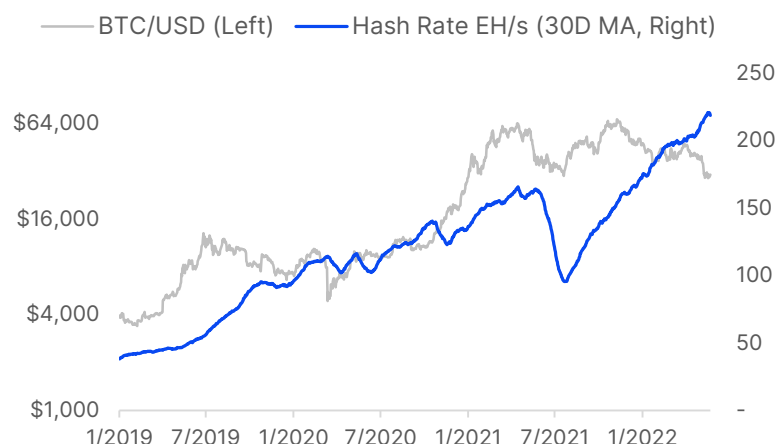
Second, higher hash rate increases the security of the Bitcoin network, as it reduces the possibility of a 51% attack. While this is already highly unlikely for Bitcoin, greater hash rate makes this proposition even more difficult to occur. Thus, higher hash rate improves the overall security of the Bitcoin network.

Another interesting factor of the state of bitcoin mining is the resurgence of hash rate in China. As many may remember, China banned mining in May of 2021, resulting in a sharp decline of hash rate and a fall in prices related to these concerns. At that time, China's percentage of total "reported" hash rate went from 34% to 0% - but now, [new data](#) from Cambridge illustrates that this percentage has returned to 21%, as of January 2022.

Not only does this illustrate bitcoin's sheer resistance to censorship, but also, the importance of decentralization. While China banned mining, the Bitcoin network continued to move forward, day by day, block by block. Now, bitcoin's hash rate is higher than ever.

BITCOIN: HASH RATE

Source: Glassnode, Eaglebrook Advisors



% Hash Rate	
United States	37.8%
Mainland China	21.1%
Kazakhstan	13.2%
Other	9.0%
Canada	6.5%
Russian Federation	4.7%
Germany	3.1%
Malaysia	2.5%
Ireland	2.0%
Iran, Islamic Rep.	0.1%

Source: University of Cambridge, Eaglebrook Advisors

PUT/CALL RATIO A SIGNAL

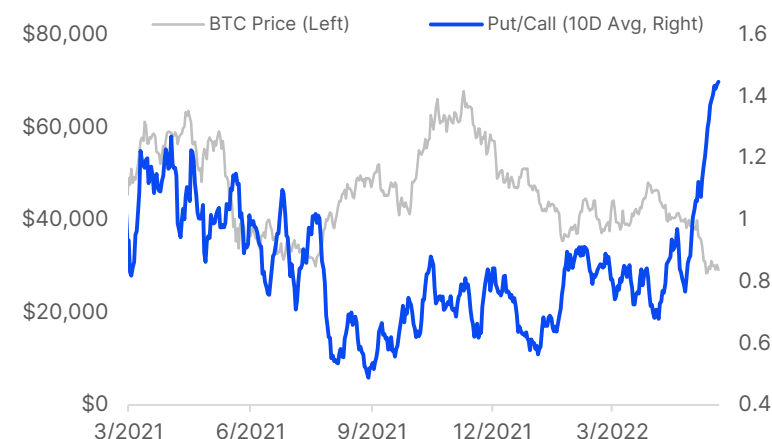
Like equities, the put/call ratio provides insight into options action, and illustrates market sentiment, particularly when reaching extremes. Most recently, bitcoin's put/call ratio hit the highest in over 12 months, averaging 1.43 in the five-business days last week. This utilizes Deribit exchange data.

This to us illustrates the continued pessimism in the market. However, as noted, this extreme could lead to the potential for a near-term rally, should sentiment move away from extreme pessimism.

Separately, the Crypto Fear & Greed Index remains at 10 – indicating "extreme fear" in the market.

BITCOIN: PUT/CALL RATIO

Source: Glassnode, Bloomberg, Eaglebrook Advisors





Joseph Orsini, CFA
Director of Research

KEY MARKET DATA

As of Sunday, 5/22/2022

Market Capitalization	2018	2019	2020	2021	2022 YTD
Bitcoin Market Cap (mlns)	\$65,307	\$130,517	\$538,811	\$876,370	\$577,892
Ether Market Cap (mlns)	\$13,886	\$14,141	\$84,171	\$433,423	\$242,252
Total Crypto Market Cap (mlns)	\$122,177	\$186,105	\$766,003	\$2,250,184	\$1,266,357
Bitcoin Dominance %	53.5%	70.1%	70.3%	38.9%	45.6%
Ethereum Dominance %	11.4%	7.6%	11.0%	19.3%	19.1%

Source: Glassnode, TradingView, Eaglebrook Advisors

Bitcoin	2018	2019	2020	2021	2022 YTD
Supply (mlns)	17.5	18.1	18.6	18.9	19.0
Market Price	\$3,674	\$7,158	\$28,996	\$46,334	\$29,908
Realized Price	\$4,556	\$5,587	\$9,206	\$24,480	\$23,813
Realized Value (mlns)	\$79,524	\$101,309	\$171,112	\$463,063	\$453,556
Market Value / Realized Value	0.82	1.29	3.15	1.89	1.27
Hash Rate	40.5 EH/S	94.3 EH/S	153 EH/S	179.2 EH/S	220 EH/s
Transfer Volume (USD, mlns)	\$2,127,287	\$1,893,560	\$2,327,727	\$13,106,605	\$6,863,347
Avg Daily Transfer Volume (USD, mlns)	\$5,828	\$5,188	\$6,360	\$35,909	\$48,333
Avg Transaction Value (USD)	\$26,518	\$18,073	\$21,266	\$138,824	\$187,695

Source: Glassnode¹, Bloomberg, Eaglebrook Advisors

	Level	WTD%	MTD%	QTD%	YTD%	1 Year%	3 Year%	5 Year%	% off 52Wk High	90D Annualized Vol.
Bitcoin	\$29,908	-3.6%	-22.0%	-34.7%	-35.5%	-21.5%	281.8%	1291.3%	-55.8%	56.1%
Ether	\$2,006	-5.8%	-28.1%	-39.2%	-45.6%	-14.9%	709.6%	1103.7%	-58.2%	63.3%
S&P 500	3,901	-3.0%	-5.5%	-13.7%	-17.7%	-4.8%	43.6%	78.2%	-18.7%	25.3%
Nasdaq Composite	11,355	-3.8%	-7.8%	-20.0%	-27.2%	-15.1%	50.4%	94.3%	-29.3%	35.2%
Bloomberg Barclay's Agg	2,139	0.6%	0.4%	-3.4%	-9.2%	-8.2%	0.9%	6.1%	-10.3%	6.9%
Gold	\$1,847	1.9%	-2.7%	-4.7%	0.9%	-1.8%	45.0%	46.5%	-10.0%	15.6%
DXI Index	\$103	-1.4%	0.2%	4.9%	7.8%	14.6%	5.2%	6.4%	-1.6%	7.6%
WTI Crude	\$113	2.5%	8.2%	12.9%	47.1%	77.8%	85.0%	123.2%	-8.5%	59.0%

Source: Bloomberg, Eaglebrook Advisors

"Tantrum Table"

Asset	High Since 9/30/21	Max Drawdown	Low Close Date	Rally From Low	YTD Price % Change
ARK Innovation	11/1/2021	-70.5%	5/11/2022	14.8%	-55.2%
Ishares MSCI USA Momentum	11/3/2021	-29.3%	5/20/2022	0.0%	-24.6%
Invesco S&P 500 High Beta	11/8/2021	-25.1%	5/11/2022	3.3%	-19.1%
Ishares Russell 2000 Value	11/8/2021	-20.5%	5/11/2022	2.1%	-13.6%
Ishares Russell 2000 Growth	11/8/2021	-38.5%	5/11/2022	4.8%	-28.0%
Ishares Core U.S. Aggregate	11/9/2021	-11.9%	5/6/2022	1.6%	-9.6%
Bitcoin	11/9/2021	-58.1%	5/11/2022	2.5%	-35.5%
Ether	11/9/2021	-59.9%	5/12/2022	1.7%	-45.6%
Us Breakeven 30 Year	4/21/2022	-0.56	2/18/2022	0.26	0.00
Us Breakeven 10 Year	4/21/2022	-0.44	5/20/2022	0.00	0.00
Us Breakeven 5 Year	3/25/2022	-0.83	5/20/2022	0.00	0.00
Gold Spot \$/Oz	3/8/2022	-11.7%	5/13/2022	1.9%	0.9%
Nasdaq Composite	11/19/2021	-29.3%	5/20/2022	0.0%	-27.4%
S&P 500 Info Tech Index	12/27/2021	-26.5%	5/19/2022	0.1%	-25.2%
S&P 500 Index	1/3/2022	-18.7%	5/19/2022	0.0%	-18.1%

Source: Bloomberg, Eaglebrook Advisors



Joseph Orsini, CFA
Director of Research

DISCLOSURES

Realized Price, Source: Glassnode. Realized Price is the Realized Cap divided by the current supply. **Realized Capitalization**, Source: Glassnode. Realized Cap values different part of the supplies at different prices (instead of using the current daily close). Specifically, it is computed by valuing each UTXO by the price when it was last moved. **Market Cap / Realized Cap**, Source: Glassnode. Market Value to Realized Value (MVRV) is the ratio between market cap and realized cap. It gives an indication of when the traded price is below a "fair value". **Hash Rate**, Source: Glassnode: The average estimated number of hashes per second produced by the miners in the network. **Total Transfer Volume**, Source: Glassnode. Data is change-adjusted, annual sum: The total amount of coins transferred on-chain, adjusted by change volume. Only successful transfers are counted. **Avg Daily Transfer Volume**, Source: Glassnode. Data is change-adjusted, daily average: The total amount of coins transferred on-chain, adjusted by change volume. Only successful transfers are counted. **Avg Transaction Value**, Source: Glassnode. The mean value of a transfer, adjusted by change volume. Only successful transfers are counted.

Investment advisory and management services are provided by Eaglebrook Advisors, Inc., a registered investment advisor. Information presented is for educational purposes only and should not be construed as providing investment advice. Past performance is no indication of future results. Investing in digital currency comes with significant risk of loss that a client should be prepared to bear, including, but not limited to, volatile market price swings or flash crashes, market manipulation, economic, regulatory, technical, and cybersecurity risks. In addition, digital currency markets and exchanges are not regulated with the same controls or customer protections available in equity, option, futures, or foreign exchange investing. Eaglebrook does not offer tax advice. Neither consultations nor information published by Eaglebrook should be construed as offering or providing tax advice.

Volatility Risk: Digital currency is a speculative and volatile investment asset. Investors should be prepared for volatile market swings and prolonged bear markets. Digital currency can have higher volatility than other traditional investments such as stocks and bonds and market movements can be difficult to predict.

Economic Risk: The economic risk associated with digital currency is in the lack of widespread or continuing digital currency adoption. The market and investors could decide that digital currency should not be valued at the current market capitalization due to a variety of factors.

Regulatory Risk: Digital currency could be banned or highly regulated by governments that would deter investors from buying or holding digital currency.

Technical Risk: Digital currency is a dynamic network with a codebase that is updated to add new security and functionality features. The updated code that is merged by the core developers could potentially have an error that threatens the security or functionality of the digital currency network.

Cybersecurity Risk: Digital currency exchanges and wallets have been hacked and digital currency has been stolen in the past. This is a potential risk that clients must be comfortable with when investing and holding digital currency. Theft is less likely when holding digital currency at a qualified custodian in offline systems (cold storage) with institutional security and controls.

The indexes presented are unmanaged portfolios of specified securities and the performance shown is gross of fees which do not reflect any initial or ongoing expenses. Indexes cannot be invested in directly. Returns for digital assets may differ significantly from the returns of indexes which hold securities. Returns are for the time periods shown.

BGN, Bloomberg Generic Price: A real-time composite based on quotes from multiple contributors that provides a market indication of where assets are priced. BGN uses both executable and indicative pricing, depending on the type of quotes available in the marketplace at the time of pricing. This methodology is used for bitcoin and ether.

The S&P 500 Index is an unmanaged value-weighted index of 500 common stocks that is generally considered representative of the U.S. stock market.

The NASDAQ Composite Index is a broad-based capitalization-weighted index of stocks in all three NASDAQ tiers: Global Select, Global Market and Capital Market.

The Bloomberg US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate pass-throughs), ABS and CMBS (agency and non-agency).

The ICE U.S. Dollar Index is a geometrically-averaged calculation of six currencies weighted against the U.S. dollar.

The Gold Spot price is quoted as US Dollars per Troy Ounce.

Bloomberg's spot crude oil price indications use benchmark WTI crude at Cushing, OK ; and other U.S. crude oil grades trade on a price spread differential to WTI, Cushing.

The Volatility Index (VIX) shows the market's expectations of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options. The VIX is a widely used measure of market risk.

For more information, please see our Form ADV Disclosures and Privacy Policy on our website.

Questions? Get in Touch:

Joe Orsini, CFA
Director of Research
jorsini@eaglebrookadvisors.com