

Standstill

November 22nd, 2022



Joseph Orsini, CFA, CMT
Vice President of Research

Post-FTX, digital asset markets are at a standstill; while contagion uncertainty and the question of further downside remains, small owners of bitcoin have added to their positions at a record pace

Key Takeaways

- + For now, the calm after the storm: crypto markets traded in a tight range last week, as participants await clues of further contagion
- + This uncertainty related to whether there are “more dominos to fall” has led to a standstill as the market awaits any negative or positive catalysts to emerge
- + Small owners of bitcoin have added to their position at a record pace, even greater than what occurred during the parabolic advance to \$20,000 in late 2017; the group has certainly found this as an opportunity

For now, the calm after the storm.

After falling from a November high of \$21,470 to a low of \$15,574 following the FTX news, bitcoin spent most of the business week within a tight range of \$16,400 and \$17,000, before declining to a Sunday close of \$16,253.

Ether, after falling from a November high of \$1,676, traded between around \$1,200 and \$1,300 in the five business days of last week, and declined to \$1,141 by Sunday evening.

So, while there hasn't been much of a bounce following the FTX decline, there hasn't been much follow-through to the downside, either.

This standstill in market action comes as the participants await any further contagion.

On the positive side, several exchanges have begun to provide proof-of-reserves. While not a perfect mechanism, “merkle trees” can give users confidence that their holdings are accounted for as part of the larger exchange wallets. It's likely that most exchanges will provide this information in the future.

Further, many of the main market makers and trading firms have reported some, but mostly insignificant, losses. Some firms have just a portion of their assets locked on FTX, while others were able to avoid the situation by diversifying trading platforms or withdrawing prior to the suspension. This is certainly a positive.

But the question still remains around the larger lending firms – particularly those that have either dealt with Alameda or have taken in altcoins as collateral this year. Of course, altcoins have faced the brunt of the selling pressure within digital assets – particularly since the FTX fallout. The value of this collateral has declined in rapid fashion alongside market prices.

So, where do we go from here?

For now, negative sentiment and uncertainty remain key thematic post-FTX. As we discussed last week, this is likely the largest awareness event in digital asset history – as a result, it may take some time for the conversation to shift away from the negatives and back to the positives.

But only time will tell. As we say, price has a knack for changing sentiment.

Near-term, contagion is the focus, with risk that can come in various degrees: uncertainty, panic, or most significantly, the unwinding of positions by firms in need of liquidation.

While bitcoin and ether usually experience a strong bounce off the lows, a standstill between buyers and sellers will likely continue until any catalysts emerge.

Either way, we know that this year's bear market is a combination of two significant headwinds: an unusual amount of monetary tightening, and the unexpected collapses of larger firms within the industry.

Bitcoin and ether's closing 2017/2018 highs of ~\$19,000 and ~\$1,400 remain key levels in the “big picture.” While much has occurred since then, a historic bear market now brings us below the previous peaks seen five years ago.

But from this, attractive valuations are presented, which have historically been great opportunities for long-term investors. In fact, small holders of bitcoin have added to their positions at a record pace, highlighting that many believe the long-term theses remains intact. We discuss on page two.

We wish all our readers a Happy Thanksgiving.

Standstill

November 22nd, 2022



Joseph Orsini, CFA, CMT
Vice President of Research

Attractive Valuations Yet Again

As we often discuss, bitcoin's Market-Value-to-Realized Value multiple provides an understanding of the market price relative to the average cost basis of on-chain holders, often called the "fair value."

According to data from Glassnode, an MVRV multiple of less than one has occurred very few times in bitcoin's history, each of which has proven to be a great buying opportunity:

- 2011, low MVRV of 0.39 on 10/19/2011
- 2012, low MVRV of 0.84 on 2/15/2012
- 2015, low MVRV of 0.55 on 1/14/2015
- 2018, low MVRV of 0.70 on 12/16/2018
- 2020, low MVRV of 0.85 on 3/12/2020

Bitcoin's latest decline brings the MVRV multiple to 0.80 with a closing market price of \$16,288 (Glassnode) versus an on-chain cost basis of \$20,321.

Consider that market tops have had MVRV valuation multiples in the 3, 4, and even 5+ range, which was experienced in December '17 (4.8), April 2021 (3.9), and November 2021 (2.9).

While rough waters can remain, valuation remains attractive on an historical basis.

Small Owners Stack At Record Pace

Despite the uncertainty in the market, the amount of bitcoin held on-chain by small owners (< 1 BTC) has hit record levels of 1,203,681 BTC. This includes only those that have moved their holdings from exchange to custody.

Not only is this a new high, but the increase is at a record pace: Over the last 30 days, this group added 82,055 bitcoin to their positions, 34,367 of which occurred just last week alone.

This 30-day uptick is 57% larger than the last greatest increase of 51,955 bitcoin added during the parabolic advance to \$20,000 in 2017 (date 12/19/2017).

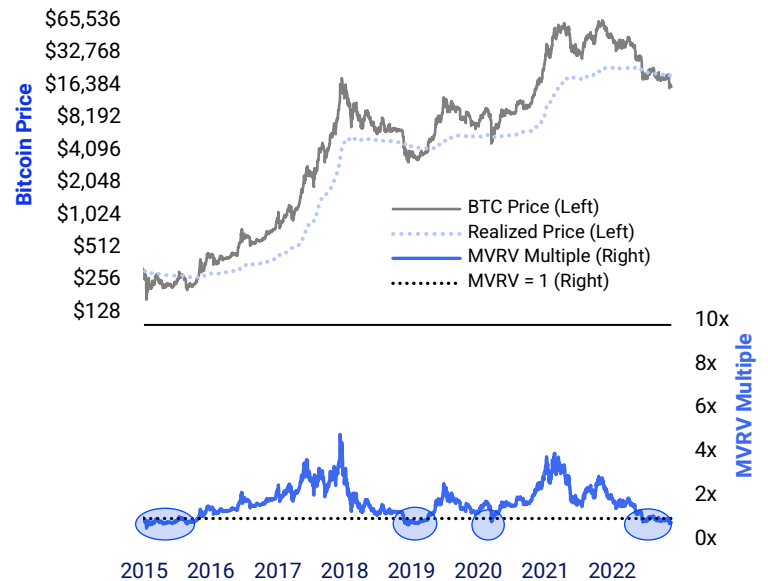
This growth in bitcoin held by small owners illustrates the high likelihood that adoption will continue despite recent events. Small owners of bitcoin have found this as an opportunity to 'stack' for the long term.

Stay Tuned,

Joseph Orsini, CFA, CMT
Vice President of Research

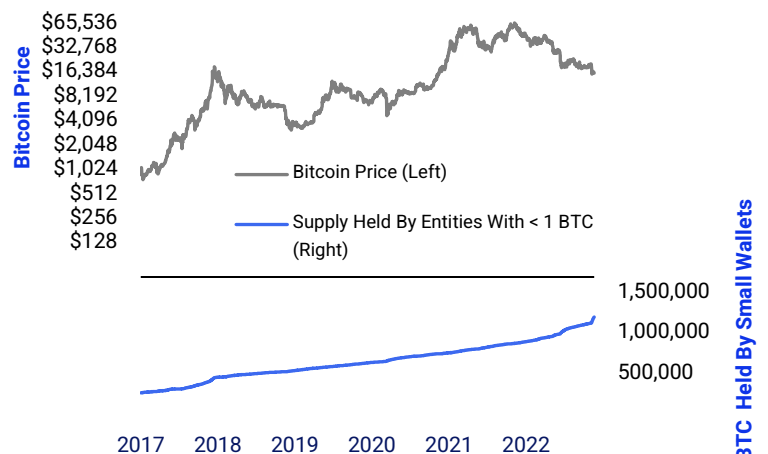
MVRV MULTIPLE

Source: Glassnode, Eaglebrook Advisors



SMALL OWNERSHIP OF BITCOIN

Source: Glassnode, Eaglebrook Advisors



Key Market Data

As of Sunday, 11/20/2022

Market Capitalization	2018	2019	2020	2021	2022 YTD
Bitcoin Market Cap (mlns)	\$65,307	\$130,517	\$538,811	\$876,370	\$312,939
Ether Market Cap (mlns)	\$13,886	\$14,141	\$84,171	\$433,423	\$137,741
Total Crypto Market Cap (mlns)	\$122,177	\$186,105	\$766,003	\$2,250,184	\$746,315
Bitcoin Dominance %	53.5%	70.1%	70.3%	38.9%	41.9%
Ethereum Dominance %	11.4%	7.6%	11.0%	19.3%	18.5%

Source: Glassnode, TradingView, Eaglebrook Advisors

Bitcoin	2018	2019	2020	2021	2022 YTD
Supply (mlns)	17.5	18.1	18.6	18.9	19.2
Market Price	\$3,674	\$7,158	\$28,996	\$46,334	\$16,253
Realized Price	\$4,556	\$5,587	\$9,206	\$24,480	\$20,321
Realized Value (mlns)	\$79,524	\$101,309	\$171,112	\$463,063	\$390,423
Market Value / Realized Value	0.82	1.29	3.15	1.89	0.80
Hash Rate	40.5 EH/S	94.3 EH/S	153 EH/S	179.2 EH/S	273.5 EH/S
Transfer Volume (USD, mlns)	\$2,127,287	\$1,893,560	\$2,327,727	\$13,106,605	\$14,662,157
Avg Daily Transfer Volume (USD, mlns)	\$5,828	\$5,188	\$6,360	\$35,909	\$45,254
Avg Transaction Value (USD)	\$26,518	\$18,073	\$21,266	\$138,824	\$176,992

Source: Glassnode¹, Bloomberg, Eaglebrook Advisors

	Level	Week %	MTD%	QTD%	YTD%	1 Year%	3 Year%	5 Year%	% off 52Wk High	90D Annualized Vol.
Bitcoin	\$16,253	-0.7%	-20.3%	-16.3%	-64.9%	-72.8%	101.0%	97.1%	-72.8%	54.8%
Ether	\$1,141	-6.2%	-27.1%	-14.3%	-69.1%	-74.2%	551.2%	209.9%	-75.4%	69.9%
S&P 500	3,965	-0.7%	2.6%	10.9%	-15.6%	-14.3%	33.9%	67.6%	-17.3%	25.4%
Nasdaq Composite	11,146	-1.6%	1.6%	5.6%	-28.2%	-30.0%	34.1%	72.1%	-29.8%	31.7%
Bloomberg Barclays Agg	2,033	0.5%	2.4%	1.1%	-13.7%	-13.6%	-8.7%	-0.3%	-14.2%	8.6%
Gold Spot \$/Oz	\$1,751	-1.2%	7.2%	5.4%	-4.3%	-5.1%	19.0%	37.1%	-14.6%	15.6%
DXY Index	\$106.9	0.6%	-4.1%	-4.6%	11.8%	11.3%	9.2%	13.7%	-6.3%	11.5%
WTI Crude	\$80.1	-10.0%	-7.5%	0.7%	4.0%	5.2%	40.2%	42.8%	-35.3%	43.9%

Source: Bloomberg, Eaglebrook Advisors

"Tantrum Table"	High Since 9/30/21	Max Drawdown	Low Close Date	Rally From Low	YTD Price % Change
ARK Innovation	11/1/2021	-74.0%	11/9/2022	12.3%	-61.3%
Ishares MSCI USA Momentum	11/3/2021	-32.8%	6/17/2022	14.7%	-17.8%
Invesco S&P 500 High Beta	11/8/2021	-32.0%	10/14/2022	17.1%	-16.6%
Ishares Russell 2000 Value	11/8/2021	-27.1%	9/30/2022	13.5%	-11.8%
Ishares Russell 2000 Growth	11/8/2021	-40.7%	6/16/2022	16.0%	-23.1%
Barclays US Aggregate Index	11/9/2021	-17.4%	10/24/2022	3.8%	-13.7%
Bitcoin	11/9/2021	-76.8%	11/9/2022	3.3%	-64.9%
Ether	11/9/2021	-81.2%	6/18/2022	26.4%	-69.1%
Us Breakeven 30 Year	4/21/2022	-0.59	9/30/2022	0.27	-0.02
Us Breakeven 10 Year	4/21/2022	-0.88	9/30/2022	0.11	-0.33
Us Breakeven 5 Year	3/25/2022	-1.57	9/30/2022	0.14	-0.60
Us Breakeven 2 Year	3/25/2022	-2.95	9/30/2022	0.38	-0.85
Gold Spot \$/Oz	3/8/2022	-20.9%	9/26/2022	7.9%	-4.3%
Nasdaq Composite Index	11/19/2021	-35.7%	10/14/2022	8.0%	-28.8%
S&P 500 Info Tech Index	12/27/2021	-34.3%	10/12/2022	13.0%	-24.5%
S&P 500 Index	1/3/2022	-25.4%	10/12/2022	10.9%	-16.8%

Source: Bloomberg, Eaglebrook Advisors

Disclosures

1 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.

There are significant limitations in the comparison of cryptocurrencies, notably Bitcoin, to fiat currencies and therefore the comparison of Bitcoin to fiat currencies in the presentation above is for presentation and discussion purposes and does not imply that Bitcoin is comparable to fiat currencies. The information presented should not be relied upon as a recommendation to invest in Bitcoin or any cryptocurrency and should not serve as an indication of the future value of Bitcoin.

Fiat currency is issued and backed by a government and is largely stable and controlled. Through legitimate monetary policy, central banks determine the amount of money in circulation and when to increase or decrease the supply, which in part affects the value and price of fiat currency.

Cryptocurrency, on the other hand, is decentralized by nature and does not have a central authority governing it. The price of cryptocurrencies is determined by several external factors may including, but not limited to: supply and demand, investors' expectations with respect to the rate of inflation, interest rates, currency exchange rates or future regulatory measures (if any) that restrict the trading of a cryptocurrency or the use of a cryptocurrency as a form of payment. Values of cryptocurrencies have historically been highly volatile, experiencing periods of rapid price increase as well as decline.

There is no assurance that a crypto currency will maintain its long-term value in terms of purchasing power in the future, or that acceptance of Bitcoin payments by mainstream retail merchants and commercial businesses will continue to grow. Bitcoin and other cryptocurrencies are not endorsed or guaranteed by any government, are not FDIC or SIPC insured, are very volatile, and involve a high degree of risk. Consumer protection and securities laws do not regulate cryptocurrencies to the same degree as traditional brokerage and investment products.

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 Bloomberg US Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers. The Bloomberg US Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on Bloomberg EM country definition, are excluded. The Bloomberg US Mortgage Backed Securities (MBS) Index tracks fixed-rate agency mortgage backed pass-through securities guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). 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. ARK Innovation ETF is an actively managed exchange-traded fund incorporated in the USA. The Fund will invest in equity securities of companies relevant to the theme of disruptive innovation. Relevant themes are those that rely on or benefit from the development of new products or services in scientific research relating to Genomics Revolution, Web x.0, and Industrial Innovation. iShares MSCI USA Momentum Factor ETF is an exchange traded fund incorporated in the USA. The Fund seeks to track the performance of an index that measures the performance of U.S. large and mid capitalization stocks exhibiting relatively higher momentum characteristics, before fees and expenses. Invesco S&P 500 High Beta ETF is an exchange-traded fund incorporated in the USA. The Fund tracks the S&P500 High Beta Index which consists of the 100 stocks from the S&P500 with the highest sensitivity to market movements, or beta, over the past year. The index is designed for investors initiating a bullish strategy or making a directional bet. The Fund is rebalanced quarterly. iShares Russell 2000 Value ETF is an exchange-traded fund incorporated in the USA. The ETF tracks the performance of the Russell 2000 Value index and holds small cap US equities focused on low price to book ratios and lower forecasted growth. Its investments are primarily focused in the consumer discretionary, financial and industrial sectors. The ETF uses a representative sampling approach. The Russell 2000 Index is comprised of the smallest 2000 companies in the Russell 3000 Index, representing approximately 8% of the Russell 3000 total market capitalization. The real-time value is calculated with a base value of 135.00 as of December 31, 1986. The end-of-day value is calculated with a base value of 100.00 as of December 29, 1978. Russell 2000 Growth Index measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values. iShares Russell 2000 Growth ETF is an exchange-traded fund incorporated in the USA. The ETF tracks the performance of the Russell 2000 Growth Index and invests in over 1000 small cap US equities across all sectors. The ETF weights its holdings using a representative sampling indexing strategy, generally investing at least 90% of its assets in the underlying index. Russell 1000 Growth Index measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values. The index was developed with a base value of 200 as of August 31, 1992. Russell 1000 Value Index measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values. The index was developed with a base value of 200 as of August 31, 1992. Russell 2000 Value Index measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values. The Bloomberg US Treasury Index measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury. Treasury bills are excluded by the maturity constraint US Breakeven Rates: The rates are United States breakeven inflation rates. They are calculated by subtracting the real yield of the inflation linked maturity curve from the yield of the closest nominal Treasury maturity. The result is the implied inflation rate for the term of the stated maturity. The MSCI Em (Emerging Markets) Index is a free-float weighted equity index that captures large and mid cap representation across Emerging Markets (EM) countries. The index covers approximately 85% of the free float-adjusted market capitalization in each country. The MSCI EAFE Index is a free-float weighted equity index. The index was developed with a base value of 100 as of December 31, 1969. The MSCI EAFE region covers DM countries in Europe, Australasia, Israel, and the Far East. The MSCI US REIT Index is a price-only index, which MSCI began calculating on June 20, 2005. Previously, this index (then known as the Morgan Stanley REIT Index) was calculated and maintained by the AMEX. The AMEX began calculating the index with a base level of 200, as of December 30, 1994. Bloomberg Commodity Index (BCOM) is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification. Roll period typically occurs from 6th-10th business day based on the roll schedule. Standard and Poor's 500 Information Technology Index is a capitalization-weighted index. The index was developed with a base level of 10 for the 1941-43 base period.

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