

Settling

December 6th, 2022



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Bitcoin and ether gained 3.3% and 5.1% last week as the FTX dust begins to settle; here, “no news is good news” when it relates to the unexpected

Key Takeaways

- + Bitcoin and ether rallied to their post-FTX range highs last week with little follow-through of selling pressure: here, “no news is good news” when it relates to the unexpected
- + Much of bitcoin and ether’s annual fall can be attributed to a few, event-driven declines. In the long run, these days mean very little to the bitcoin, ether, and digital asset investment theses
- + Capitulation in the month of November was on par with the lows in June 2022, December 2018, and January 2015, with on-chain realized losses totaling 5.3% of bitcoin’s market capitalization

With little follow-through on both selling pressure and news related to contagion risk, bitcoin and ether gained 3.3% and 5.1% last week. The two closed towards the highs of their post-FTX ranges with a price of \$17,115 and \$1,277 by Sunday evening.

With the largest near-term risk the selling pressure any further contagion may bring, not much news has hit the tape in this regard. The BlockFi bankruptcy was relatively priced in given their need for the FTX bailout. Otherwise, “no news is good news” when it relates to the unexpected – as a result, buyers have found interest at these levels as the dust begins to settle.

So aside from the knee-jerk reactions lower, both bitcoin and ether have remained resilient since the news broke. Ether has not only held the lows from mid-June but remains 41.4% above those very levels.

One would think that ether would have put in new lows alongside bitcoin when the second-largest digital asset exchange filed for bankruptcy. But post-Merge Tokenomics and ether’s wide net into the digital asset ecosystem has likely supported price throughout these tumultuous times. Since the Merge, ether’s issuance has averaged just 0.0% inflation, a significant reduction in selling pressure compared to the ~2.4% inflation rate that occurred prior to September 15th.

And even bitcoin, which did put in new lows in the month of November, hasn’t performed all that badly. Bitcoin is just 3.8% below its previous low-watermark of \$17,785, and a reclaim of these levels is certainly not out of reach if a catalyst were to appear.

With the Q4 rally that occurred prior to the FTX news, bitcoin and ether are down just 11.9% and 4.1% on a quarter-to-date basis, hardly reflecting the events that unfolded in the month of November.

And while performance from all-time highs is the talk of the town, the underlying price action is relatively strong when considering both the macro and crypto uncertainty that has occurred throughout nearly all of this year. Much of these moves lower can be attributed to just a few, significantly event-driven days in which bitcoin fell:

- **11/8:** -9.6% and **11/9:** -15.9%
- **6/13:** -15.1%
- **6/18:** -13.8%

And as we believe, these single days (while impacting near-term perception) ultimately mean very little to the long-term digital asset theses.

Even with the double whammy of headwinds (both macro & idiosyncratic), bitcoin and ether remain significantly higher than the lows seen in previous years. We recall most recently, the Covid-19 close of \$4,904 and \$110 on 3/16/2020.

So where do we go from here? Aside from contagion (or lack thereof), it’s likely bitcoin and digital assets revert to their correlations with equities.

Equities have rallied since the mid-October lows, and the S&P 500 is now down just 13.3% on a total return basis this year. These gains are likely supported by monetary policy that has recently become less uncertain. The market has priced in a 5% peak Federal Funds rate since mid-October, and as a result, the stampede higher in both the dollar and yields paused and pulled back quite quickly. These weeks would have garnered a digital asset rally, but the FTX news rightfully took center stage.

But as contagion risk slowly moves to the rear-view mirror, improvements in macro sentiment should support digital assets through these tough times. On page 2, we illustrate the events that have increased the underperformance versus equities and highlight significant capitulation in the month of November.

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Event-Driven Declines

As we've often discuss, correlations with equities have remained high for much of this year given macro volatility.

While bitcoin and digital assets performed quite well in the face of macro uncertainty (bitcoin outperformed equities in Q1, while both bitcoin and ether outperformed equities in Q3), the idiosyncratic risk – i.e. the collapses of major institutions – has been the culprit for this year's significant underperformance.

To us, the resilience through both the macro environment and the crypto-specific risks demonstrate the investment case is still intact. While growing pains, these events should ultimately lead to improvements in both regulation and the quality of the underlying infrastructure. While some companies have failed, many have not: the remaining group is battle-tested and has likely learned valuable lessons for the future.

We annotate the chart to the right to illustrate how bitcoin, which outperformed to start the year, has fallen to today's levels. The event-driven risk has hit the tape the hardest.

Capitulation on Par With Previous Lows

One measure of market extremes is bitcoin's on-chain realized profits or losses as a percentage of its total market capitalization.

Bitcoin's realized profit and loss sums the gains or losses of on-chain transactions by comparing the price at which each bitcoin was sent out of a wallet versus the price at which it entered.

Thus, meaningfully large amounts of bitcoin transferred at values lower than its original cost basis suggests participant capitulation. When taking the aggregate of all on-chain transfers and comparing it to market cap, we can normalize the magnitude of profits or losses experienced on that day, week, or month, compared to history.

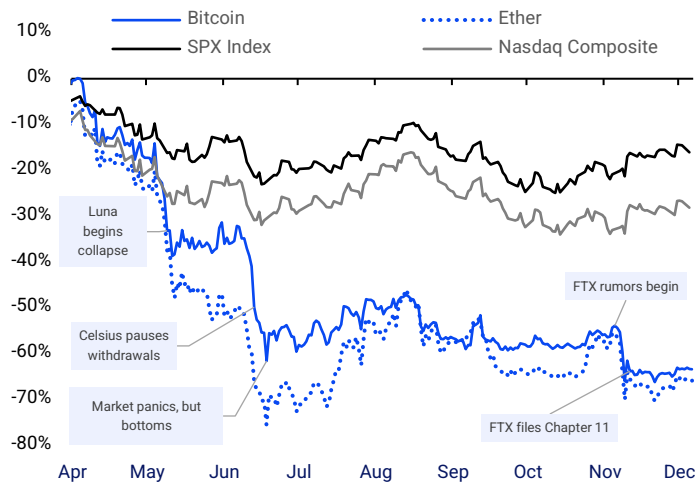
Here, we find that realized losses in November as a percentage of market capitalization is on par with major lows. \$17.8 billion of losses in November was 5.3% of market capitalization, which is the largest percentage since June 2022 (-5.7%), December 2018 (-5.1%), and January 2015 (-5.5%). Bitcoin has withstood a significant amount of selling pressure thus far.

Stay Tuned,

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YTD RETURN & EVENT-DRIVEN DECLINES

Source: Bloomberg, Eaglebrook Advisors. As of 12/4/2022.



REALIZED PNL % OF MARKET CAP

Source: Glassnode, Eaglebrook Advisors. As of 11/30/2022.



Key Market Data

As of Sunday, 12/4/2022

Market Capitalization	2018	2019	2020	2021	2022 YTD
Bitcoin Market Cap (mlns)	\$65,307	\$130,517	\$538,811	\$876,370	\$329,462
Ether Market Cap (mlns)	\$13,886	\$14,141	\$84,171	\$433,423	\$154,421
Total Crypto Market Cap (mlns)	\$122,177	\$186,105	\$766,003	\$2,250,184	\$810,155
Bitcoin Dominance %	53.5%	70.1%	70.3%	38.9%	40.7%
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	19.2
Market Price	\$3,674	\$7,158	\$28,996	\$46,334	\$17,115
Realized Price	\$4,556	\$5,587	\$9,206	\$24,480	\$20,137
Realized Value (mlns)	\$79,524	\$101,309	\$171,112	\$463,063	\$387,129
Market Value / Realized Value	0.82	1.29	3.15	1.89	0.85
Hash Rate	40.5 EH/S	94.3 EH/S	153 EH/S	179.2 EH/S	257.8 EH/S
Transfer Volume (USD, mlns)	\$2,127,287	\$1,893,560	\$2,327,727	\$13,106,605	\$14,754,076
Avg Daily Transfer Volume (USD, mlns)	\$5,828	\$5,188	\$6,360	\$35,909	\$43,651
Avg Transaction Value (USD)	\$26,518	\$18,073	\$21,266	\$138,824	\$170,718

Source: Glassnode¹, Bloomberg, Eaglebrook Advisors

	Level	Week %	November %	QTD%	YTD%	1 Year%	3 Year%	5 Year%	% off 52Wk High	90D Annualized Vol.
Bitcoin	\$17,115	3.3%	-16.2%	-11.9%	-63.1%	-64.9%	138.1%	48.8%	-66.4%	55.0%
Ether	\$1,277	5.1%	-17.1%	-4.1%	-65.4%	-68.6%	776.7%	173.1%	-71.1%	69.6%
S&P 500	4,072	1.1%	5.6%	13.9%	-13.3%	-8.9%	37.3%	68.4%	-15.1%	25.0%
Nasdaq Composite	11,462	2.1%	4.5%	8.6%	-26.1%	-23.4%	37.2%	77.4%	-27.8%	31.1%
Bloomberg Barclays Agg	2,086	1.5%	3.7%	3.7%	-11.4%	-12.0%	-6.3%	2.2%	-11.7%	8.8%
Gold Spot \$/Oz	\$1,798	2.4%	8.3%	8.3%	-1.7%	0.8%	21.9%	40.9%	-12.3%	15.7%
DXY Index	\$104.5	-1.3%	-5.0%	-6.8%	9.3%	8.8%	7.1%	12.2%	-8.4%	11.9%
WTI Crude	\$80.0	2.7%	-6.9%	0.6%	3.9%	20.7%	36.9%	39.2%	-35.3%	42.7%

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	17.2%	-59.7%
Ishares MSCI USA Momentum	11/3/2021	-32.8%	6/17/2022	17.2%	-16.0%
Invesco S&P 500 High Beta	11/8/2021	-32.0%	10/14/2022	21.2%	-13.8%
Ishares Russell 2000 Value	11/8/2021	-27.1%	9/30/2022	16.1%	-9.9%
Ishares Russell 2000 Growth	11/8/2021	-40.7%	6/16/2022	19.0%	-21.2%
Barclays US Aggregate Index	11/9/2021	-17.4%	10/24/2022	6.5%	-11.4%
Bitcoin	11/9/2021	-76.9%	11/21/2022	9.5%	-63.1%
Ether	11/9/2021	-81.2%	6/18/2022	41.4%	-65.4%
Us Breakeven 30 Year	4/21/2022	-0.59	9/30/2022	0.38	0.09
Us Breakeven 10 Year	4/21/2022	-0.88	9/30/2022	0.29	-0.15
Us Breakeven 5 Year	3/25/2022	-1.57	9/30/2022	0.40	-0.35
Us Breakeven 2 Year	3/25/2022	-2.95	9/30/2022	0.61	-0.63
Gold Spot \$/Oz	3/8/2022	-20.9%	9/26/2022	10.8%	-1.7%
Nasdaq Composite Index	11/19/2021	-35.7%	10/14/2022	11.0%	-26.7%
S&P 500 Info Tech Index	12/27/2021	-34.3%	10/12/2022	15.6%	-22.7%
S&P 500 Index	1/3/2022	-25.4%	10/12/2022	13.8%	-14.6%

Source: Bloomberg, Eaglebrook Advisors

Disclosures

¹Realized 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.

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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.

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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.

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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.

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