EAGLEBROOK ADVISORS

Balance

January 10th, 2023

Joseph Orsini, CFA, CMT
Vice President of Research

This year investors must balance near-term risks with long-term opportunities; while uncertainty within the industry remains, valuations and history illustrate the attractive opportunity presented for investors

Key Takeaways

+ 2023 will be a year in which digital asset participants must balance near-term risks with long-term opportunities
+ Despite headlines, macro conditions have improved on the margin, supporting a rally in equities; digital assets may finally participate, should contagion risk move to the rear-view mirror
+ We discuss the portfolio impact of responsible digital asset allocations through the tough year and highlight bitcoin's attractive valuation, still below 1 on the MVRV multiple

The first week of the new year started off with a bang as digital assets finally participated in an equity rally: bitcoin and ether gained 2.1% and 5.6%, while the S&P 500 and Nasdaq gained 1.4% and 1.0%, respectively.

While a nice start to the year is certainly welcomed, market participants are hesitant to trust any gains. Of course, rampant inflation, the Fed's miscommunication, and historically tough market performance has left a sour taste in the mouth of investors that have experienced the market rollover after every rally that took place in 2022.

As a result, the years-long mantra of "buy the dip" has quickly turned to "sell the rip" with the new perception that markets offer more "danger than opportunity" even for long-term investors.

But for centuries, capital markets have been an avenue for opportunity. Risks are always present, but success often comes with buying quality assets and waiting long periods of time. In history, dollar-cost averaging and remaining patient has provided investors with a means to accumulate assets, particularly when taking advantage of market weakness.

But just one year and another digital asset drawdown has investors hesitant and feeling as if there is "no rush" to rebalance or re-allocate to their digital asset exposures.

Sure – this asset class is more volatile than equities, which may be hard to stomach. But rebalancing – no matter the asset – benefits from volatility.

In this regard, digital assets investors must now "balance" near-term risks with long-term opportunities. Near-term, contagion concerns remain forefront, and this uncertainty is rather justified. But the question remains, are there actually more dominos to fall, and if so, does this lead to forced selling pressure?

While these near-term contagion risks are rather binary, under the surface, the macro environment has improved - supporting the almost three-month rally seen in equities since mid-October. Factors that are also relevant for digital assets:

+ The growing likelihood of a cyclical peak in yields, with the 10yr placing a high of 4.24% on 10/24, now 3.56% by Sunday's close
+ The growing likelihood of a cyclical peak in the DXY Index, which has fallen 9.0% from a peak of 114.1 on 9/27 to now 103.9 by Sunday's close (see our deep dive on bitcoin vs. the dollar found here);
+ The growing certainty around the Fed's process of normalization, with expectations that have remained the same since October (5 – 5.25% is just 50-75 bps higher than the current upper bound of 4.5%)
+ The recent strength in gold's rally, reaching an 8-month high, serving as a potential hint towards upcoming Fed dovishness
+ Continued disinflation, with 3-month annualized US CPI at 3.7% y/y (Thursday's print can further support disinflationary trends, with an m/m est. of -0.1%)
+ A resilient US economy that has yet to crack, and in particular, the strong labor market with a 3.5% unemployment rate

And as such, equities have rallied in response to these improving conditions. S&P 500 earnings are the next nearest hurdle, which begins later this week, while a soft versus hard landing remains "up in the air."

For digital assets, the near-term risk is contagion, while the long-term opportunity is the attractive valuation presented following yet another historical drawdown.

On page 2, we discuss the importance of responsible position sizing and highlight the continued attractiveness of bitcoin's valuation as a long-term asymmetric opportunity.

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The Importance of Position Sizing

For perspective, we offer a contribution report that illustrates digital assets' impact on portfolio performance after a meaningful, event-driven decline.

While negative crypto performance impacted portfolios to the downside, responsible position sizing (we recommend anywhere from 1-6%) led to relatively minor differences in performance when compared to the larger impact of stocks and bonds. While an 80% MSCI ACWI and 20% Barclays AGG portfolio declined approximately 17.2% in the year, bitcoin and ether exposure with a:

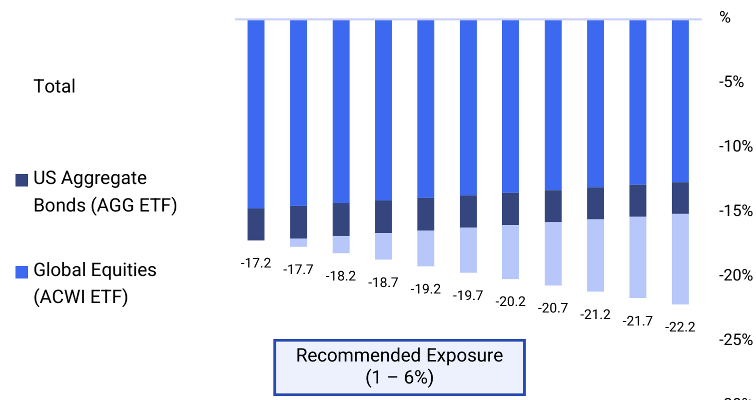
+ A small 2% market-cap position resulted in portfolio performance of -18.2%, a difference of ~100bps
+ A base-case 4% market-cap position resulted in portfolio performance of -19.2%, a difference of ~200bps
+ A large 6% market-cap position resulted in portfolio performance of -20.2%, a difference of ~300bps

For those that rebalanced on the first day of Q3, position size remains underweight the target, with a 2% position now ~1.9%. For those that haven't rebalanced, this position is now just 1.4% of total portfolio holdings.

Active investors should consider including digital assets in their portfolio rebalance after last year's performance, in an effort to maintain investment discipline.

CONTRIBUTION TO ANN. RETURN

Source: Bloomberg, Eaglebrook Advisors



	0	1	2	3	4	5	6	7	8	9	10
Total	-17.2	-17.7	-18.2	-18.7	-19.2	-19.7	-20.2	-20.7	-21.2	-21.7	-22.2
Bitcoin + Ether		-0.7	-1.4	-2.1	-2.9	-3.6	-4.3	-5.0	-5.7	-6.4	-7.1
US Aggregate Bonds (AGG ETF)	-2.6	-2.6	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5
Global Equities (ACWI ETF)	-14.7	-14.5	-14.3	-14.1	-13.9	-13.7	-13.5	-13.3	-13.0	-12.8	-12.6

1 – 10 % Digital Asset Exposure, Taken from Equity

Digital asset allocations are calculated with market cap weighted exposure to bitcoin and ether, gross of fees. Portfolios are rebalanced semi-annually on the first day of the first and third quarters. Source: Bloomberg, Eaglebrook Advisors. Portfolio returns calculated using Bloomberg Port. iShares MSCI ACWI ETF (ACWI) represents global equity exposure, while iShares Core US Aggregate Bond ETF (AGG) represents fixed income exposure. Bloomberg Galaxy Bitcoin Index represents bitcoin, while Bloomberg Galaxy Ethereum Index represents ether. MSCI ACWI ETF is used as a proxy for MSCI ACWI index.

The Long-Term Opportunity

As investors look to balance near-term contagion risks with long-term opportunities, we again point to bitcoin's valuation.

As we see, an MVRV multiple around 1x has been a strong entry point for long-term investors as it represents a price that is at or even below the on-chain "fair value."

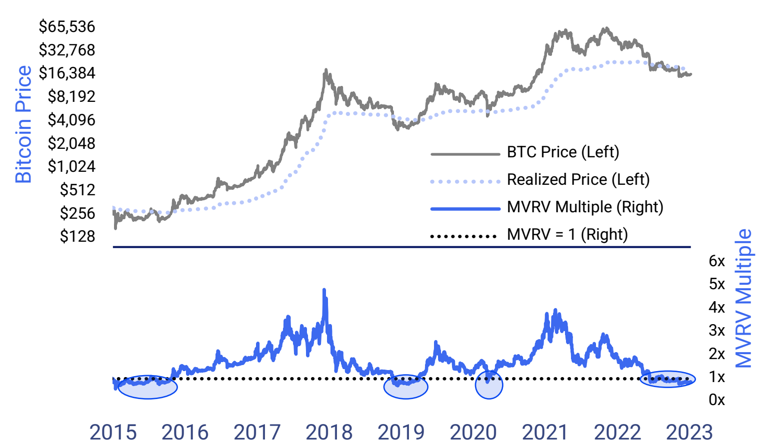
The tough 2022 year has now offered an attractive valuation of 0.86x, with Sunday's closing price of $16,957 compared to the $19,725 on-chain cost basis.

Consider that MVRV multiples have reached 3, 4, and even 5 at market tops, with December 2017 (4.9x), April 2021 (4.0x), and November 2021 (2.8x) as recent examples.

Near-term contagion risks versus long-term, asymmetric opportunities.

MVRV MULTIPLE

Source: Glassnode, Eaglebrook Advisors



Stay Tuned,
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Key Market Data

As of Sunday, 1/8/2023

Market Capitalization	2019	2020	2021	2022	2023 YTD
Bitcoin Market Cap (mlns)	$130,517	$538,811	$876,370	$318,630	$328,462
Ether Market Cap (mlns)	$14,141	$84,182	$434,897	$144,287	$154,805
Total Crypto Market Cap (mlns)	$122,177	$186,105	$766,003	$759,168	$807,693
Bitcoin Dominance %	106.8%	289.5%	114.4%	42.0%	40.7%
Ethereum Dominance %	11.6%	45.2%	56.8%	19.0%	19.2%

Source: Glassnode, TradingView, Eaglebrook Advisors

Bitcoin	2019	2020	2021	2022	2023 YTD
Supply (mlns)	18.1	18.6	18.9	19.2	19.3
Market Price	$7,158	$28,996	$46,334	$16,540	$16,957
Realized Price	$5,587	$9,206	$24,480	$19,776	$19,725
Realized Value (mlns)	$101,309	$171,112	$463,063	$380,670	$379,831
Market Value / Realized Value	1.29	3.15	1.89	0.84	0.86
Hash Rate	94.3 EH/S	153 EH/S	179.2 EH/S	277.5 EH/S	260.5 EH/S
Transfer Volume (USD, mlns)	$1,893,560	$2,327,727	$13,106,605	$14,907,826	$41,354
Avg Daily Transfer Volume (USD, mlns)	$5,188	$6,360	$35,909	$40,843	$5,169
Avg Transaction Value (USD)	$18,073	$21,266	$138,824	$159,723	$20,654

Source: Glassnode[1], Bloomberg, Eaglebrook Advisors

	Level	WTD %	MTD%	QTD%	YTD%	1 Year%	3 Year%	5 Year%	% off 52Wk High	90D Annualized Vol.
Bitcoin	$16,957	2.1%	2.5%	2.5%	2.5%	-59.4%	111.8%	13.5%	-64.6%	48.2%
Ether	$1,270	5.6%	5.9%	5.9%	5.9%	-58.8%	812.6%	11.9%	-63.8%	66.4%
S&P 500	3,895	1.4%	1.5%	1.5%	1.5%	-15.4%	25.7%	54.8%	-17.6%	25.0%
Nasdaq Composite	10,569	1.0%	1.0%	1.0%	1.0%	-28.6%	18.7%	54.8%	-30.4%	30.8%
Bloomberg Barclays Agg	2,087	1.8%	1.8%	1.8%	1.8%	-10.0%	-6.3%	2.3%	-10.2%	8.8%
Gold Spot $/Oz	$1,866	2.3%	2.3%	2.3%	2.3%	3.8%	19.9%	41.3%	-9.0%	16.8%
DXY Index	$103.9	0.3%	0.3%	0.3%	0.3%	8.5%	6.8%	12.5%	-9.0%	11.8%
WTI Crude	$73.8	-8.1%	-8.1%	-8.1%	-8.1%	-6.5%	23.8%	19.5%	-40.4%	41.4%

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	-76.3%	12/28/2022	5.8%	0.4%
Ishares MSCI USA Momentum	11/3/2021	-32.8%	6/17/2022	11.9%	-0.1%
Invesco S&P 500 High Beta	11/8/2021	-32.0%	10/14/2022	15.1%	3.9%
Ishares Russell 2000 Value	11/8/2021	-27.1%	9/30/2022	10.1%	2.3%
Ishares Russell 2000 Growth	11/8/2021	-40.7%	6/16/2022	12.1%	1.4%
Barclays US Aggregate Index	11/9/2021	-17.4%	10/24/2022	6.5%	1.8%
Bitcoin	11/9/2021	-76.9%	11/21/2022	8.5%	2.5%
Ether	11/9/2021	-81.2%	6/18/2022	40.6%	5.9%
Us Breakeven 30 Year	4/21/2022	-0.59	9/30/2022	0.18	-0.07
Us Breakeven 10 Year	4/21/2022	-0.91	12/16/2022	0.08	-0.09
Us Breakeven 5 Year	3/25/2022	-1.57	9/30/2022	0.07	-0.16
Us Breakeven 2 Year	3/25/2022	-2.95	9/30/2022	0.13	-0.20
Gold Spot $/Oz	3/8/2022	-20.9%	9/26/2022	15.0%	2.3%
Nasdaq Composite Index	11/19/2021	-36.4%	12/28/2022	3.5%	1.0%
S&P 500 Info Tech Index	12/27/2021	-34.3%	10/12/2022	6.6%	0.2%
S&P 500 Index	1/3/2022	-25.4%	10/12/2022	8.9%	1.4%

Source: Bloomberg, Eaglebrook Advisors

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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.

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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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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 Russel 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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