



Once known as the smartest people in the room, the Fed is rapidly losing credibility; changing policy expectations and continued miscommunication highlight the attractiveness of bitcoin's objective, hard-coded monetary policy

KEY TAKEAWAYS

- + With stronger than expected nonfarm and CPI data, the market prices in further rate hikes; while many focus on the Fed's actions, its communication continues to damage credibility
- + The wild swings in the market's expectations for Fed policy highlights the attractiveness of bitcoin's known, fixed, and disinflationary monetary policy
- + Bitcoin outperformed US equities in both Q1 and Q3, emphasizing the significance of the idiosyncratic decline experienced in Q2

THE BIRD'S EYE VIEW

While the first few days of October started off strong, recent nonfarm payroll data and hotter than expected CPI helped maintain the high level of drama that markets have experienced throughout the 2022 year.

Following September 21st FOMC meeting in which the dot plots illustrated the "higher for longer" expectation of a 4.6% policy rate by next year, this most recent data pushed estimates even higher: now, the market is pricing in a 4.9% policy rate by March or May of 2023, which is about 175 basis points higher than the current 3.25% upper bound.

And so, what a roller coaster it has been in the form of Fed expectations. While inflation on the surface remains hot, the market's perception of where policy is headed has swung rapidly up and down throughout this year. Let's consider that expectations:

- + Priced in a year-end policy rate of 0.75% in the beginning of the year, expecting just 2% at year-end by Q1's finish;
- + Then first peaked in mid-June with a 3.9% rate expected by February or March of 2023;
- + Declined until August 1 to a peak policy rate expectation of 3.2%, when the upper bound was still 2.5%;
- + Have re-risen to a 5% upper bound expectation after dot plots, Fedspeak, and recent economic data

So, in the last two and a half months, the market has priced in ~175 basis points more of tightening than previously expected.

Of course, data changes, and so should the Fed's opinion on policy. But once known as the smartest people in the room, the Fed continues to lose credibility.

First, inflation was said to be "transitory" and was allowed to run hot given "average inflation targeting." Ultimately, the Fed waited nine months after the first 5% y/y to move off ZIRP.

The Fed then raised 50bps in the next meeting, as Fed Chair

Powell said, "a 75bp increase is not something that the committee is actively considering." The Fed then hiked 75bps six weeks later, while Powell said, "a 75bp increase is an unusually large one, and I do not expect moves of this size to be common." The Fed then went back on their words and hiked another 75bps twice more, with a fourth 75bp hike also priced in for the November meeting.

While nobody has a crystal ball, the Fed's "forward guidance" has misguided participants since inflation began. If inflation were to have slowed by now, the Fed would have looked wise. But hotter than expected data and miscommunication in hindsight portrays quite the opposite. Now, the Fed appears to be on autopilot mode. With continuing Fedspeak related to the "higher for longer" hawkish stance for 2023, we wonder if this will truly be the case or not, with many months of data ahead.

Add on news of excessive trading and a lack of portfolio disclosures by some voting members, and it's certainly been a tough run for the Fed in 2022.

What's this mean for bitcoin?

Well, a rising lack of credibility alongside growing bitcoin education highlights the attractiveness of a simple, objective, hard-coded, and non-sovereign monetary policy. In a world of uncertainty, bitcoin provides a known and immutable supply schedule. There is no centralized planning, discretion, or communication errors.

Bitcoin's policy rate will be 1.7% until the next halving in May of 2024. New issuance will then decline to 0.8%/yr for the next four years. How simple. We compare on page 2.

In other news, the Financial Accounting Standards Board (FASB) determined that US companies using US GAAP should use fair value accounting for cryptocurrency assets like bitcoin and ether, with gains and losses recorded in comprehensive income.

This major milestone should support further institutional adoption as it no longer penalizes corporations for owning digital assets on their balance sheet. Digital assets will be measured and accounted similarly as traditional financial assets.



A TALE OF TWO POLICIES

The Fed's centralized, subjective, and discretionary policymaking has led to significant uncertainty around the monetary policy of one of the largest economies in the world.

Here, we illustrate the many different policy paths that Fed Funds futures have expected throughout this year, with meaningful changes nearly each and every month.

As we know, uncertainty around the future cost of borrowing sends ripples throughout the economy: this impacts consumers, businesses, and investor risk appetite, to name a few.

But despite the changing Fed policy and tone, bitcoin's monetary policy has not changed at all.

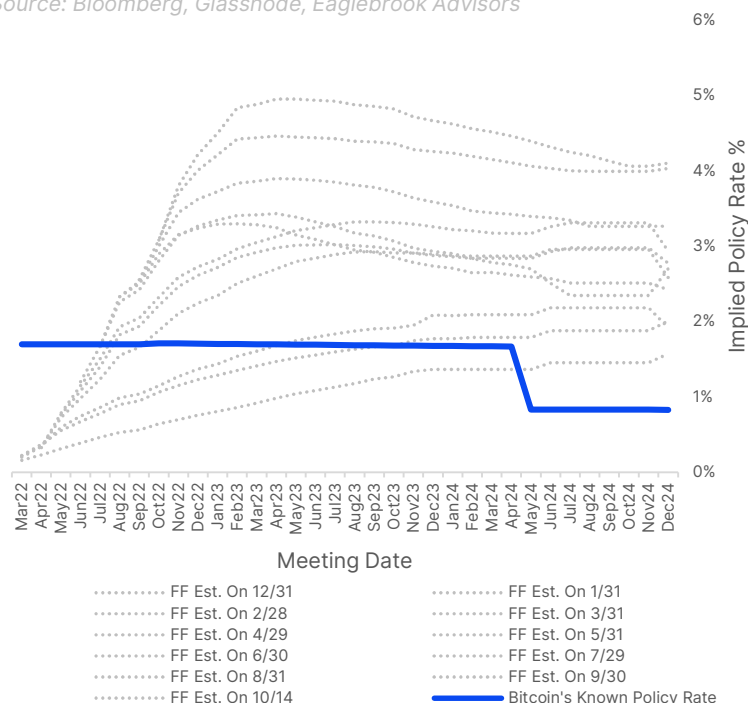
Every block, a miner receives 6.25 new bitcoin, which will halve around May of 2024. In doing so, supply inflation will decline from approximately 1.7% per year to 0.8% year. It's that simple.

Bitcoin has no Fedspeak, no miscommunication, and no preferences or biases. New issuance through the block reward changes every 210,000 blocks, no matter the circumstance.

Based on the events of this year, a monetary policy with certainty sounds quite attractive.

UNCERTAIN VS. CERTAIN POLICY

Source: Bloomberg, Glassnode, Eaglebrook Advisors



BITCOIN OUTPERFORMED IN Q1 AND Q3

While major asset classes sold off in the third quarter, bitcoin gained 3.7% and ether gained 31.8%. This came as equities created new year-to-date lows while bitcoin and ether held their \$17,785 and \$902 closes from June 18th.

This relative strength for bitcoin parallels the first quarter of this year, in which the asset lost -1.2% versus the S&P 500's total return loss of -4.6%.

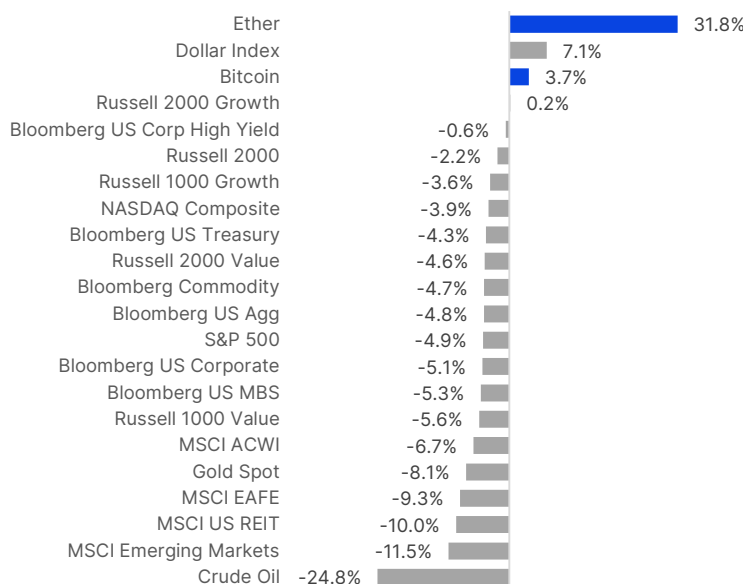
Strong relative performance in both the first and third quarters supports the idiosyncratic and event-driven reasoning for the meaningful crypto underperformance in Q2 (which was driven largely by the fallouts of the Luna smart-contract platform and firms such as Three Arrows, Voyager, and Celsius).

This strong relative performance outside of the specific Q2 events should increase confidence around the resilience of bitcoin and ether, particularly as the two weather an historically tough macro environment.

Stay Tuned,
 Joseph Orsini, CFA, CMT
 Vice President of Research

3Q 2022 RETURNS

Source: Bloomberg, Eaglebrook Advisors. Total Return used for traditional assets when applicable. Price return used for bitcoin and ether.





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KEY MARKET DATA

As of Sunday, 10/16/2022

Market Capitalization	2018	2019	2020	2021	2022 YTD
Bitcoin Market Cap (mlns)	\$65,307	\$130,517	\$538,811	\$876,370	\$369,563
Ether Market Cap (mlns)	\$13,886	\$14,141	\$84,171	\$433,423	\$156,993
Total Crypto Market Cap (mlns)	\$122,177	\$186,105	\$766,003	\$2,250,184	\$898,342
Bitcoin Dominance %	53.5%	70.1%	70.3%	38.9%	41.1%
Ethereum Dominance %	11.4%	7.6%	11.0%	19.3%	17.5%

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	\$19,333
Realized Price	\$4,556	\$5,587	\$9,206	\$24,480	\$21,153
Realized Value (mlns)	\$79,524	\$101,309	\$171,112	\$463,063	\$405,747
Market Value / Realized Value	0.82	1.29	3.15	1.89	0.91
Hash Rate	40.5 EH/S	94.3 EH/S	153 EH/S	179.2 EH/S	256.2 EH/S
Transfer Volume (USD, mlns)	\$2,127,287	\$1,893,560	\$2,327,727	\$13,106,605	\$13,920,908
Avg Daily Transfer Volume (USD, mlns)	\$5,828	\$5,188	\$6,360	\$35,909	\$48,169
Avg Transaction Value (USD)	\$26,518	\$18,073	\$21,266	\$138,824	\$188,590

Source: Glassnode¹, Bloomberg, Eaglebrook Advisors

	Level	WTD%	MTD%	QTD%	YTD%	1 Year%	3 Year%	5 Year%	% off 52Wk High	90D Annualized Vol.
Bitcoin	\$19,333	-0.8%	-0.5%	-0.5%	-58.3%	-68.3%	142.0%	240.4%	-71.5%	44.3%
Ether	\$1,311	-0.8%	-1.6%	-1.6%	-64.5%	-65.8%	650.4%	293.2%	-72.7%	64.7%
S&P 500	3,583	-1.6%	0.0%	0.0%	-23.9%	-18.6%	25.8%	53.0%	-25.3%	25.3%
Nasdaq Composite	10,321	-3.1%	-2.4%	-2.4%	-33.6%	-30.2%	30.3%	63.4%	-35.7%	31.3%
Bloomberg Barclays Agg	1,982	-1.2%	-1.4%	-1.4%	-15.8%	-15.7%	-10.6%	-3.0%	-16.4%	8.6%
Gold Spot \$/Oz	\$1,644	-3.0%	-1.0%	-1.0%	-10.1%	-7.0%	10.4%	26.9%	-19.8%	13.9%
DXI Index	\$113.3	0.5%	1.1%	1.1%	18.4%	20.6%	15.6%	21.4%	-0.7%	9.8%
WTI Crude	\$85.6	-7.6%	7.7%	7.7%	11.2%	4.0%	60.4%	65.0%	-30.8%	48.1%

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	-72.8%	10/14/2022	0.0%	-64.1%
Ishares MSCI USA Momentum	11/3/2021	-32.8%	6/17/2022	3.8%	-25.7%
Invesco S&P 500 High Beta	11/8/2021	-32.0%	10/14/2022	0.0%	-28.8%
Ishares Russell 2000 Value	11/8/2021	-27.1%	9/30/2022	2.5%	-20.4%
Ishares Russell 2000 Growth	11/8/2021	-40.7%	6/16/2022	6.0%	-29.8%
Barclays US Aggregate Index	11/9/2021	-16.4%	10/14/2022	0.0%	-15.8%
Bitcoin	11/9/2021	-73.7%	6/18/2022	8.7%	-58.3%
Ether	11/9/2021	-81.2%	6/18/2022	45.2%	-64.5%
Us Breakeven 30 Year	4/21/2022	-0.59	9/30/2022	0.25	-0.04
Us Breakeven 10 Year	4/21/2022	-0.88	9/30/2022	0.25	-0.19
Us Breakeven 5 Year	3/25/2022	-1.57	9/30/2022	0.34	-0.40
Us Breakeven 2 Year	3/25/2022	-2.95	9/30/2022	0.56	-0.67
Gold Spot \$/Oz	3/8/2022	-20.9%	9/26/2022	1.4%	-10.1%
Nasdaq Composite Index	11/19/2021	-35.7%	10/14/2022	0.0%	-34.0%
S&P 500 Info Tech Index	12/27/2021	-34.3%	10/12/2022	0.2%	-33.1%
S&P 500 Index	1/3/2022	-25.4%	10/12/2022	0.2%	-24.8%

Source: Bloomberg, Eaglebrook Advisors



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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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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.

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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. 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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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