NYDIG | SEPTEMBER 2022

Bitcoin **Brief**

Market Update

Bitcoin ended September at ~$19.5K and delivered stronger performance for the quarter (+3%) than U.S. equities and bonds, with the S&P 500 Index and Bloomberg U.S. Aggregate Total Return Bond Index both down 5%. In Q3, fiat debasement concerns overcame risk-off driven liquidity shocks, driving the dollar, yen, euro, and pound all down relative to bitcoin. Bitcoin is still down nearly 58% for 2022, a year which has seen most major asset classes struggle meaningfully, except for commodities and the U.S. dollar.

Weakness in the British pound in particular serves as a reminder of the benefits of bitcoin, an alternative monetary system detached from politically motivated individuals. In late September, the UK government unveiled the country's biggest tax cuts since the 1970s in an attempt at kick-starting growth amidst stubbornly high inflation. This news drove the pound to a record low against the US dollar as investors worried that the government would have to borrow massively to offset the cuts. Prime Minister Truss eventually reversed course with a key component of her plan when it became clear the tax break for high earners did not have broad political support.

Bitcoin is used by investors and citizens all over the world as a hedge against the wrongdoings of policymakers. It should come as no surprise that trading volumes between the pound and bitcoin spiked to a record high a few days after the announcement, hitting approximately $920M on September 26th, compared with an average of roughly $60M a day so far in 2022.[1]

HIGHLIGHTS.

- Market Update
- Flurry of Regulatory Activity
- White House & Proof-of-Work (PoW) Mining

MARKET STATS.

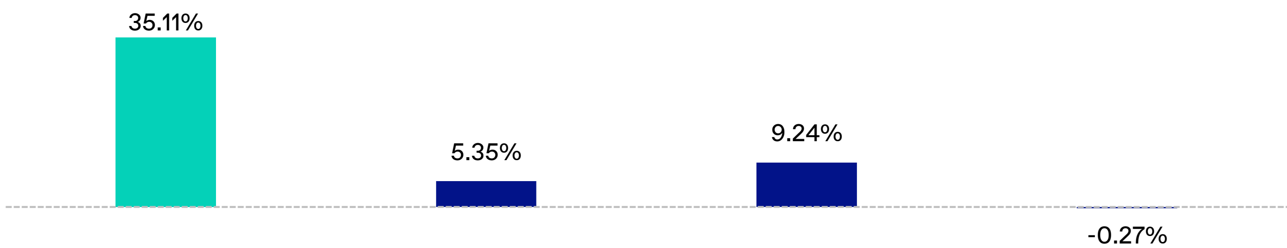
As of 9/30/22

BTC Price	$19,481
BTC Market Cap	$373B
% of BTC Total Supply in Circulation	>91%
3M Average Daily Bitcoin Transactions	~252K

NOTEWORTHY HEADLINES.

- Nasdaq is Preparing Institutional Crypto Custody Service
- Colorado Becomes First State to Accept Bitcoin for Taxes
- White House Releases Comprehensive Framework for Digital Assets
- Secretary Yellen on the Release of Reports on Digital Assets
- Ether's New 'Staking' Model Could Draw SEC Attention
- Fidelity Weighs Bitcoin Trading on Brokerage Platform

5 Year Annualized Return



	BTC	Gold	S&P 500	Bloomberg Agg
5 Yr Sharpe Ratio	0.74	0.38	0.52	-0.26

Flurry of Regulatory Activity

Here in the United States, September proved to be a busy month on the regulatory front for crypto:

- **White House Executive Order (EO) Deliverables:** The bulk of the reports requested in early March by the EO on Ensuring Responsible Development of Digital Assets were released. These policy papers outline recommendations in areas such as investor protection, financial stability, illicit finance, financial inclusion, and U.S.-led innovation. Many of the actions prescribed are already underway by regulators, but there were incremental directives such as amending the Bank Secrecy Act to apply to digital asset service providers and tracking the environmental impact of proof-of-work mining.
- **Federal Legislation Progress:** Two important pieces of legislation advanced in Congress. The Senate Committee on Agriculture, Nutrition, and Forestry has been considering a bill that would designate the CFTC as the main regulator of digital commodities, and it explicitly includes bitcoin and ether in the definition of digital commodities. Separately, the House Financial Services Committee has been working on bipartisan stablecoin legislation which would establish a framework for the supervision of stablecoin issuers. While both bills have garnered notable momentum, the earliest either bill may become law is likely after the midterm elections in 2023.
- **SEC Comments:** Chairman Gary Gensler made expansive comments on September 8th regarding crypto regulation in a carefully crafted speech in Washington D.C. Chairman Gensler communicated his belief that the vast majority of crypto tokens are securities and their sale offerings, as well as the service providers dealing in those assets, are required to be registered and regulated by the SEC. Gensler also identified select assets that account for a significant portion of crypto market cap as "crypto non-security tokens" which should be regulated by the CFTC following legislative action by Congress. This would create even more regulatory clarity for bitcoin, the largest crypto non-security token under Gensler's definition.

White House & Proof-of-Work (PoW) Mining

As part of President Biden's EO, the White House Office of Science and Technology Policy (OSTP) released their report detailing the environmental impact of PoW-based digital assets, bitcoin being the largest by market value. This interagency study summarizes the energy consumption, greenhouse gas (GHG) emissions, and other externalities associated with bitcoin. It provides comparisons to select users of electricity and offers recommendations for policymakers.

The report acknowledges that mining can "help rather than hinder U.S. climate objectives" by using green energy or energy that would otherwise be wasted, two sources of electricity already used by bitcoin miners. Estimates vary, but it's generally believed that 30-38% of PoW mining currently relies upon sustainable energy[2] such as solar, wind, and hydropower. Economic incentives push bitcoin miners to the cheapest source of power available to them, which is increasingly green energy. Moreover, the paper highlights that mining can be powered by stranded methane which would slow near-term climate warming given the potency of methane emissions. Crypto, like all energy-intensive industries, plays an important role in the fight against climate change, and PoW mining offers environmental benefits which may outweigh its costs, which the OSTP estimates at just 0.2% to 0.3% of global (CO2) emissions.

Performance	1MO	3MO	YTD	1YR	3YR*	5YR*
Bitcoin	-3.70%	3.10%	-57.53%	-55.25%	33.24%	35.11%
Gold	-2.95%	-8.12%	-9.22%	-5.48%	4.09%	5.35%
S&P 500	-9.21%	-4.88%	-23.87%	-15.47%	8.16%	9.24%
Bloomberg Agg	-4.32%	-4.75%	-14.61%	-14.60%	-3.26%	-0.27%

*Returns greater than 1 year are annualized.

	5YR Standard Deviation	5YR Sharpe Ratio	5YR Correlation to BTC
Bitcoin	87.3%	0.74	-
Gold	12.9%	0.38	0.14
S&P 500	18.1%	0.52	0.38
Bloomberg Agg	4.8%	-0.26	0.23

Sources:

NYDIG, Bloomberg as of 9/30/22, unless noted otherwise. All prices are 4:00 pm ET prices on the last business day of each month. Bloomberg Agg represents the Bloomberg US Aggregate Total Return Bond Index. Bitcoin returns based on month-end 4pm prices. Monthly bitcoin prices prior to October 2018 are based on Coinbase 4pm pricing. In October 2018, NYDIG began generating bitcoin prices in accordance with NYDIG Asset Management's valuation policy for its bitcoin funds. The monthly bitcoin prices used after October 2018 reflect 4pm prices determined in accordance with such valuation policy, which is the same valuation policy that is used for NYDIG's funds. As there are two different pricing sources for bitcoin reflected, the historical performance of bitcoin shown may be different if the bitcoin prices in accordance with NYDIG Asset Management's valuation policy were used for the entire period or if the Coinbase pricing were used for the entire period. Performance data quoted represents past performance of bitcoin. Past performance of bitcoin is not indicative of future results. Bitcoin has historically exhibited high price volatility relative to more traditional asset classes. The value of an investment in bitcoin or the funds could decline rapidly, including to zero.

[1] U.S. News & World Report, Bitcoin-Sterling Volumes Spike to Record High. Data sourced from Kaiko Research's analysis of eight major exchanges.

[2] Estimates for the amount of bitcoin mining powered by sustainable sources of energy vary. For example, the White House Office of Science & Technology Policy (2022) estimates 30% of bitcoin mining is powered by sustainable sources while Cambridge University (2022) estimates 38%.

Important Disclosures: