ASSET MANAGEMENT

market notes: Boom, Bust…Discipline.

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6/16/2023 - Mathias Nwokejiobi and Marcel Kasumovich

1. Credit is the lifeline of an economy. The global debt market expanded to $235 trillion last year, more than double that of global equity markets. Debt cycles are also critical to the severity of a cyclical downturn. Financial crises are borne from excess leverage, taking years, or even decades, to resolve. But debt overhangs are rare in young industries. After all, investors provide credit in anticipation of future cash flows, and the uncertainty is too great in new businesses.

2. Crypto dares to be different, especially when it comes to debt for a nascent asset. Bitcoin saw a surge in revenue with the rise in prices through 2021. But an even greater rise in capital spending on computer machines for future bitcoin mining led to steeply negative free cash flow and borrowing needs for the mining industry. The downturn in prices led to widespread delinquency, which Doug Wilson articulates as a classic commodity boom-bust cycle.

3. Discipline follows a boom-bust cycle. Bitcoin miners were the eye of the debt storm in 2021. Now, they are the barometer for discipline and cleansing in the crypto ecosystem. The market imposes that discipline. We see it in our Digital Financial Conditions Index – the tightest of the past year. It is also clear in short-term bond yields at 20-30%. Miners have a strong incentive to constrain capital spending, build cash flow surplus, and reduce leverage.

4. Our Digital Pulse for bitcoin miners is instructive (Figure 1). Revenue is strong, running at 80.6 on a scale of 0 to 100. But so is production capacity. Big capital spending plans from 2021-2022 are still coming online. This is evident in the high hashrate – the total computational power dedicated to bitcoin mining – with a score of 93.8. So, revenue per hash remains depressed with less than a year to the next halving of bitcoin rewards.

5. The state of bitcoin mining can be summarized in a single number – the hash spread. Bitcoin mining is a conversion business, like commodity markets. Miners convert energy into bitcoin. The hash spread, like a crack spread in traditional energy markets, measures the difference between input costs and production. It captures industry-specific profitability, the difference between the electricity cost and the bitcoin mined from it. It is still weak (Figure 2).

6. There are two key elements at work – price and power.

7. On price, the discipline in bitcoin's recovery is evident from patterns of the recent selloff. Prices are down roughly 20% from recent highs, after a near-doubling from the November lows. Yet, volatility markets are calm – forced selling is immaterial. Miners are one of the reasons why, having greatly reduced their bitcoin holdings. Miners are already tied to the cyclicality of bitcoin. Investors aren't rewarding even more cyclicality through large inventory holdings.

8. On power, soaring electricity prices were the unwanted catalyst in the stormy landscape of 2022. That has operated in reverse this year. The price of bitcoin is up ~175%[1] relative to natural gas this year – a terrific outcome for the conversion business. Still, markets are not extrapolating. The downturn in energy costs is partly on concerns of weaker demand, and a global recession is a risk to bitcoin prices. If a recession isn't realized, energy prices are very likely to rise.

9. The road ahead inevitably converges on the 2024 halving date, when mining rewards will be reduced by 50% for the fourth time in their history. The rise in bitcoin's price into the previous three halving episodes brings attention to scarcity value. But without demand, there can be no scarcity. Growth in the network since the last halving is encouraging – the Lightning Network capacity has risen 482%, and the number of addresses with at least 1 bitcoin is up 24%.

10. Boom-bust-discipline argues for a longer, slower bull market cycle, one that climbs the wall of worry on concerns of repeating errors of the past. Capital preservation is paramount and bitcoin mining is a window into that theme. Indicators like bitcoin's use in financing operations will be useful in benchmarking the duration of the discipline cycle. And tools like the Digital Pulse and Hash Spread will tell you when to worry. The signals now are clear – carry on.

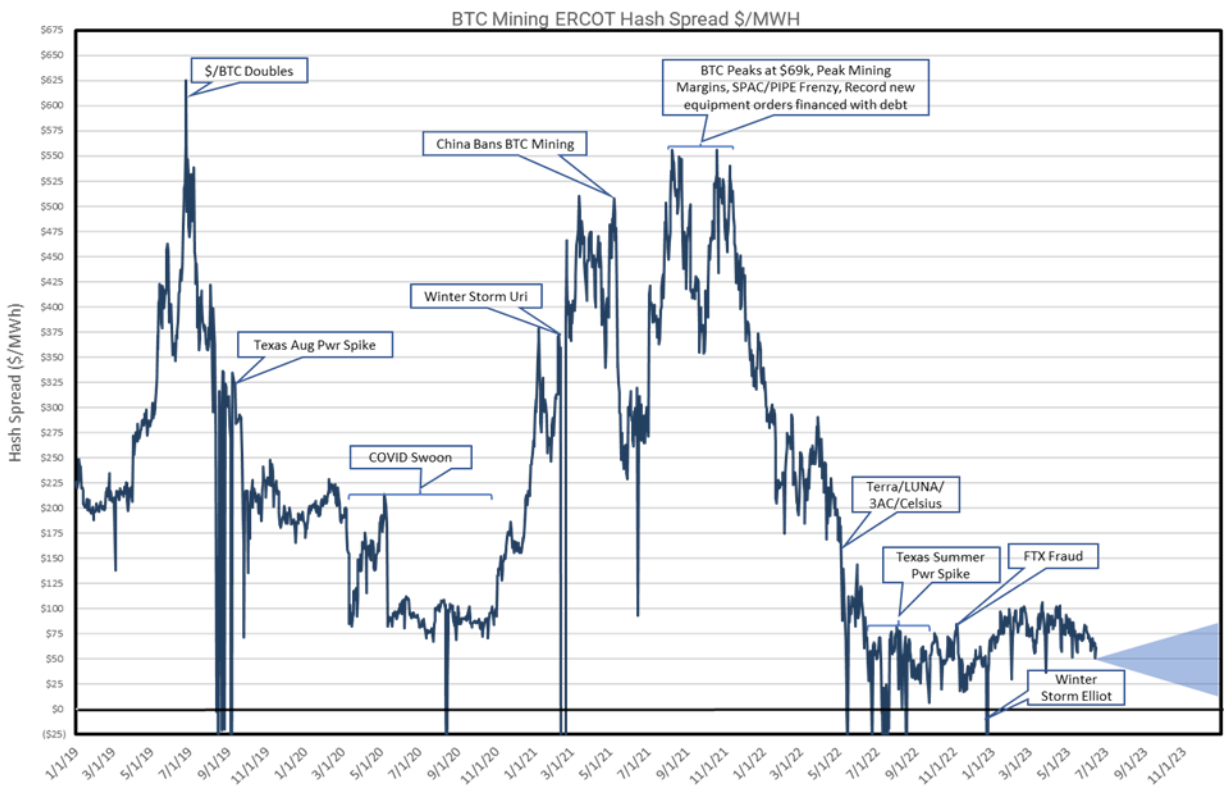
[1] Source: Coinbase Asset Management Calculations.

One River Digital Asset Management has been acquired by Coinbase and is now Coinbase Asset Management. Additional details on the transaction may be found on the Coinbase blog. References to One River Asset Management and One River Digital Asset Management may be contained herein during the transition period but are subject to change.

Figure 1 – Bitcoin Mining Digital Pulse Dashboard

Source: Coinbase Asset Management.

Figure 2 – Bitcoin Mining Hash Spread – USD per MWh



Sources: Bloomberg. Blockchain.com. Coinbase Asset Management calculations. Power prices are day-ahead ahead ERCOT average pricing. Bitcoin mining revenues are converted into $/MWh from $/TH, assuming the marginal unit is a S19JPro ASIC which consumes 28J/TH. Note: the impact of Winter Storm Uri, when power prices in ERCOT traded to the cap of $9000/MWh and remained there from Feb 15, 2021, to Feb 19, 2021, are excluded as miners were forced to shut down during that period.

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