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Analysis of the Tariff Policy and Its Impact on the Bitcoin Mining Industry



Abstract

- In April 2025, the Trump administration announced the implementation of a "reciprocal tariff" policy, imposing a uniform 10% "minimum benchmark tariff" on all global trade partners. The policy triggered significant turbulence across global risk assets.
- Bitcoin, as a leading public blockchain using the Proof-of-Work (PoW) consensus mechanism, relies heavily on physical mining hardware—equipment that is not included in the U.S. tariff exemption list. As a result, mining companies are under substantial cost pressure.
- Over the past month, mining rig manufacturers experienced the sharpest stock price declines, as they were hit on both the supply and demand sides by the tariff policy.
- Self-operated mining farms were mainly impacted on the supply side, with the process of selling mined Bitcoin to cryptocurrency exchanges largely unaffected by the tariffs.
- Cloud mining farms were the least affected, due to their business model of shifting equipment acquisition costs to customers through service fees, which significantly cushions the impact on platform profitability compared to traditional mining models.
- Despite the tariff policy's negative impact on the U.S. Bitcoin mining industry, institutional
 players such as BlackRock' s IBIT (a spot Bitcoin ETF) and MicroStrategy (a Bitcoinholding public company) maintain their dominant influence over market pricing.
- Bitcoin's price alone is no longer the sole indicator. Instead, factors such as policy direction, geopolitical security, energy allocation, and manufacturing stability have become the true keys to the mining industry's long-term viability.

Topic Tags:

Gate Research, Tariffs, Bitcoin, Bitcoin mining industry

Gate Research: Analysis of the Tariff Policy and Its Impact on the Bitcoin Mining Industry

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1 Introduction

On April 2, the Trump administration in the United States announced the launch of a "reciprocal tariff" policy, imposing a uniform 10% "minimum benchmark tariff" on all global trade partners, along with significantly higher "customized" tariffs for countries with large trade deficits. This policy triggered sharp volatility across global risk assets. Both the S&P 500 and the Nasdaq recorded their largest single-day declines since March 2020, while assets in the cryptocurrency sector also suffered substantial losses. Following the tariff announcement, China responded with an 84% retaliatory tariff on U.S. goods, and the European Union imposed a 25% tariff on \$21 billion worth of U.S. products. Over \$10 trillion in global stock market value was wiped out in just one week.

On April 9, a reversal occurred. Trump announced a 90-day suspension of the new tariffs for 75 countries, excluding China. The European Union followed suit by pausing its tariff measures and initiating negotiations with the U.S. On the same day, the S&P 500 rose by 9.51%, the Nasdaq by 12.02%, Bitcoin rebounded by 8.19% to \$82,500, and Ethereum climbed back to \$1,650.

Among the various sectors in crypto assets, Bitcoin mining, due to its heavy reliance on hardware, global supply chain reach, and high capital intensity, is one of the most directly affected components of the on-chain economy. The global trade tensions sparked by the U.S. tariff policy have delivered a multi-layered blow to the crypto mining industry. Since most Bitcoin mining machines are manufactured in China, the U.S.–China tariff dispute increases import costs for miners. China's export tax rate to the U.S. has risen to 145%, putting pressure on North American mining expansion plans. Additionally, the depreciation of the Renminbi has heightened the burden of U.S. dollar-denominated debt for Chinese mining firms. Combined with volatility in power and energy prices, operating costs continue to rise. Meanwhile, fluctuations in cryptocurrency prices also impact miners' income. Bitcoin dropped from \$82,500 before the tariff announcement to below \$75,000 at one point.

At the macro level, concerns over stagflation in the U.S. and rising risk aversion have pushed 10-year Treasury yields higher, suppressing appetite for risk and tightening financing conditions. As a result, mining company stocks have fallen in tandem with the tech sector. Amid heightened geopolitical tensions, the global layout of the mining industry may undergo restructuring, with firms potentially accelerating their move to tariff-friendly regions such as Southeast Asia and the Middle East. In the short term, policy uncertainty will continue to amplify risks in Bitcoin mining, possibly ushering in a new wave of industry reshuffling.

2 Bitcoin Mining Takes Direct Hit from Tariff Policy as Mining Stocks Underperform NASDAQ 100

As the leading public blockchain using the Proof-of-Work (PoW) consensus mechanism, and the largest cryptocurrency by market capitalization, Bitcoin is widely regarded as "digital gold." Since the PoW mechanism relies on physical mining machines, and because neither mining rigs nor their key upstream component, such as semiconductors, are included in the tariff exemption list, mining companies now face significant cost pressures. The upstream impact of the tariff policy may be transmitted downstream through cost mechanisms, potentially influencing the medium- to long-term price trajectory of Bitcoin.

The Bitcoin mining ecosystem consists of machine manufacturers, self-operated mining farms, and cloud mining services. Major mining machine manufacturers include Bitmain, Canaan Inc. (NASDAQ: CAN), MicroBT, and Ebang International (NASDAQ: EBON), all of which operate their main production facilities in mainland China. Notably, Bitmain holds a dominant share of the mining rig market, with its IPO prospectus in 2018 revealing a market share exceeding 70%.

Leading self-operated mining farm companies include Marathon Digital (NASDAQ: MARA), Riot Platforms (NASDAQ: RIOT), and CleanSpark (NASDAQ: CLSK). These publicly listed companies are headquartered in the U.S., but their mining farms are located across various countries, including the U.S., the UAE, and Paraguay. Marathon currently operates the world's largest mining farm, with a total hash rate exceeding 54 EH/s, accounting for roughly 6% of the global network's computing power.

For cloud mining services, major players include Antpool, Bitdeer (NASDAQ: BTDR), BitFufu (NASDAQ: BFBF), and Ecos. Unlike self-operated farms, cloud mining companies package computing power and sell it to individual or institutional clients, thereby transferring part of the risk of Bitcoin price fluctuations to customers. These platforms themselves focus on selecting mining locations, facility construction, and daily operations. Bitdeer operates both self-owned and cloud mining businesses, while BitFufu exclusively focuses on cloud mining.

Impacted by Trump's tariff policy, the stock prices of Bitcoin mining-related companies have declined, with most falling more sharply than the NASDAQ 100 Index. Using data from Yahoo's yfinance database, the author tracked the daily closing prices of eight publicly listed Bitcoin mining companies over the past month, alongside the NASDAQ 100 Index as a benchmark. On April 2, when Trump announced the tariff policy, the stock prices of all these mining companies

dropped significantly. After the April 9 announcement that the policy would be postponed by 90 days, these stocks saw a clear rebound.

After normalizing the data, mining machine manufacturers emerged as the hardest-hit sector within Bitcoin mining since the tariff announcement. Canaan fell by more than 17%, and Ebang by over 11%. The self-operated mining segment followed, with Core Scientific leading the decline, dropping over 10% in the past month. Marathon saw the smallest drop in this group at just 0.8%. Cloud mining companies were relatively less affected; BitFufu's stock dropped only 5.9%. In comparison, the NASDAQ 100 Index declined by 2.2% over the same period.

Figure 1: Performance of Bitcoin Mining Companies vs. NASDAQ 100 Index (NDX) Over the Past Month

| Company Name | Business Type | Stock Ticker | Closing Price (Apr 2) | Closing Price (Apr 9) | Price Change (%) |
|---------------------|----------------------------|--------------|-----------------------|-----------------------|------------------|
| Marathon | Self-Operated Mining | MARA | \$12.42 | \$12.31 | -0.89% |
| Riot | Self-Operated Mining | RIOT | \$8.02 | \$7.37 | -8.04% |
| Cleanspark | Self-Operated Mining | CLSK | \$8.02 | \$7.63 | -4.86% |
| Core Scientific | Self-Operated Mining | CORZ | \$8.42 | \$7.51 | -10.81% |
| Bitdeer | Cloud/Self-Operated Mining | BTDR | \$9.48 | \$8.83 | -6.86% |
| BitFuFu | Cloud/Self-Operated Mining | FUFU | \$4.57 | \$4.30 | -5.91% |
| Canaan | Mining Rig Manufacturer | CAN | \$0.89 | \$0.74 | -17.59% |
| Ebang International | Mining Rig Manufacturer | EBON | \$3.99 | \$3.54 | -11.24% |
| NASDAQ 100 Index | - | NDX | 19,581 | 19,145 | -2.23% |

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3 How Trump's Tariff Policy Affects Different Segments of the Bitcoin Mining Industry

Following Trump's tariff policy announcement, the stock prices of all major Bitcoin mining companies declined to varying degrees. However, as mentioned earlier, each industry segment experienced a different level of impact. This divergence in performance is primarily due to the different levels of exposure each part of the Bitcoin mining supply chain has to the tariffs.

Figure 2: Core Supply Chain of the Bitcoin Mining Industry



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3.1 Mining Rig Manufacturers

Among all segments, mining rig manufacturers experienced the most significant stock price declines over the past month. This is mainly due to the tariff policy affecting both the supply and demand sides of the mining equipment market. On the supply side, mining machine manufacturers depend on foundries such as TSMC, Samsung, and SMIC. These companies first design their own ASIC chips (Application-Specific Integrated Circuits), then send the designs to foundries for tape-out. Once the tape-out succeeds, the foundries mass-produce the chips, which are then assembled into mining rigs by the manufacturers.

TSMC holds a 64.9% share of the global chip foundry market [1]. The Trump administration has demanded that TSMC build manufacturing facilities in the U.S., or else face tariffs exceeding 100% [2]. Other foundries like SMIC, Hua Hong Semiconductor, and Samsung are also under pressure from high U.S. tariffs. These foundries are left with two choices: pay the tariffs or reduce their U.S.-related orders, both of which would hurt profitability. The financial pressure on these upstream suppliers is likely to be passed down to mining rig producers, who may be forced to pay higher prices to maintain foundry profit margins.

On the demand side, companies like Bitmain, Canaan Inc., and MicroBT are all registered in China. This means U.S.-based mining companies such as Marathon, Riot, and CleanSpark must now pay substantial tariffs to import mining equipment, significantly raising procurement costs. As a result, a sharp decline in short-term orders is expected.

For example, take Bitmain's flagship model Antminer S21 Pro and Canaan's Avalon A15 Pro. Assuming electricity costs of \$0.043 per kWh (CleanSpark's projected 2024 rate)[3], a global network hash rate of 850 EH/s [4], and an equipment depreciation period of 30 months [5], the cost to mine one Bitcoin using the S21 Pro currently stands at \$68,367, while the A15 Pro's

cost is approximately \$75,801—excluding other operational expenses.

Figure 3: Specifications of Mainstream Bitcoin Mining Machines

| Parameter / Model | S21 Pro | A15 Pro |
|-----------------------------------|-------------|-------------|
| Purchase Price (Official Website) | \$4,423 [6] | \$4,534 [7] |
| Hash Rate | 234 TH/s | 218 TH/s |
| Power Consumption | 15.0 J/T | 16.8 J/T |
| Depreciation Period | 2.5 years | 2.5 years |
| Electricity Cost | \$0.043/KWH | \$0.043/KWH |
| BTC Mined per 10 Minutes | 3.125 | 3.125 |
| Total Network Hash Rate | 850 EH/s | 850 EH/s |
| Cumulative BTC Mined | 0.113 | 0.105 |
| Total Mining Cost | \$7,728 | \$7,982 |
| Cost per Bitcoin | \$68,367 | \$75,801 |

Gate Research, Data from: Bitmain, Canaan

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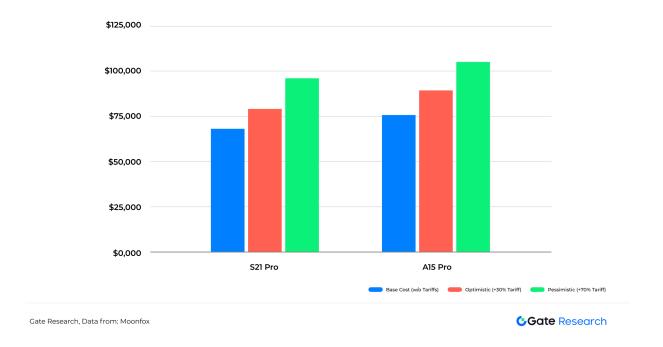
Note 1: Key Calculation Formulas: Cumulative Bitcoin Mined = (Mining Machine Hash Rate × 60 × 24 × 365 × Depreciation Period × Block Reward) ÷ 10 ÷ Total Network Hash Rate ÷ 1,000,000

Total Cost = Purchase Price + (Hash Rate × Power Consumption × Electricity Cost × 24 × 365 ÷ 1,000) (Note: Personnel and facility rental costs are not included)

Cost per Bitcoin = Total Cost ÷ Cumulative Bitcoin Mined

If the tariff policy is implemented, then in an optimistic scenario, where the export price of mining rigs increases by 30% over the original base price, the cost to mine one Bitcoin with the S21 Pro rises to \$80,105, and with the A15 Pro to \$88,717. In a pessimistic scenario, assuming a 70% price increase, the cost per Bitcoin for the S21 Pro reaches \$95,756, and for the A15 Pro, \$105,938.

Figure 4: Mining Cost per Bitcoin Under Different Tariff Scenarios



The prices above do not account for complex operational expenses at mining farms, such as facility rental and labor costs. Once these are included, mining costs will rise even further. Higher tariffs significantly increase the financial burden on miners, while the weakening of downstream demand also delivers a considerable blow to upstream mining rig manufacturers.

In the long term, mining hardware manufacturers may prioritize production capacity in regions with favorable tariff policies. They can effectively hedge against potential tariff risks through globalized production strategies and achieve better supply chain cost optimization.

3.2 Self-Operated Mining Farms

Compared to mining rig manufacturers, which face pressure from both supply and demand sides, self-operated mining farms are primarily affected on the supply side. Their core business—selling mined Bitcoin to cryptocurrency exchanges—is less directly impacted by the tariff policy. However, Bitcoin prices are influenced by such policies. Uncertainty drives capital to exit risk assets, leading to noticeable short-term declines in Bitcoin's price. Firms like Marathon, which have strong cash flow, tend to adopt a HODL (coin-holding) strategy, meaning they retain their mined Bitcoin rather than selling it immediately on exchanges. This is similar to MicroStrategy's approach of issuing debt to purchase Bitcoin. Marathon has repeatedly issued convertible bonds to acquire Bitcoin directly. As a result, large mining operations are relatively less affected by price declines in the short term.[8][9][10][11]

For smaller mining farms with tighter cash flows, falling Bitcoin prices have a more pronounced impact on their stock valuations. Due to financial constraints, these companies often cannot afford to hold onto mined Bitcoin for long and must sell immediately to sustain operations. During bearish market conditions, this "mine and sell" strategy can add to selling pressure, further dragging down Bitcoin's price. As shown below, as of March 2025, Cipher and Hive held 1,034 and 2,201 BTC, representing year-over-year decreases of 40% and 3%, respectively. In contrast, Marathon and Riot held 47,531 and 19,223 BTC, with 173% and 126% year-over-year increases, respectively.

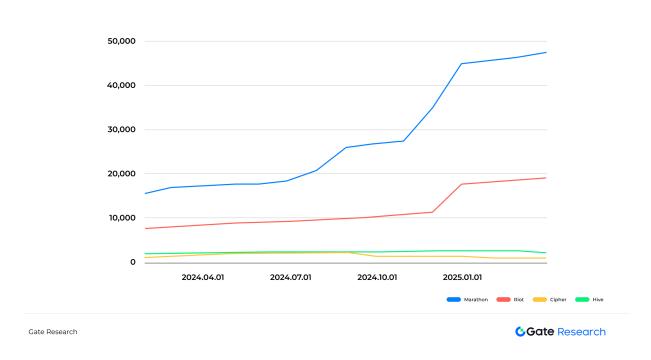


Figure 5: Change in Bitcoin Holdings by Self-Operated Mining Firms (Jan 2024 -Mar 2025)

Over the past month, smaller firms like Cipher and Hive Digital experienced stock price declines of -7.1% and -5.5%, respectively, following the tariff announcement, both dropping more sharply than large miners like Marathon, which maintained a HODL strategy.

However, in the long run, mining hardware typically has a depreciation cycle of 2.5 to 3 years, which means self-operated mining farms must continually make capital expenditures (CAPEX) to replace aging equipment. Although companies use different methods to report hash rate metrics, such as monthly average hash rate, energized hash rate, or end-of-month hash rate, making direct comparisons challenging, data disclosed by major listed miners between January 2024 and March 2025 shows that most achieved hash rate growth exceeding 70%. The main driver behind this continuous growth is relative competitiveness: as the total network hash rate

rises, any farm that does not expand its capacity will mine a shrinking share of Bitcoin. Bitcoin mining is a dynamic competition—standing still means falling behind.

Against this backdrop, if the mining machine tariff policy is fully implemented, the increased costs faced by mining rig manufacturers will inevitably be passed down to mining farms. This will further raise the marginal cost of production across the industry and pose profitability challenges, particularly for mid-sized miners.

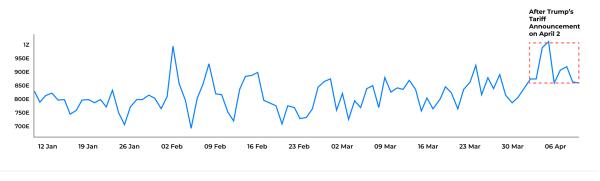
3.3 Cloud Mining Farms

Cloud mining farms operate on a leasing model, where their upstream suppliers are mining rig manufacturers, and their downstream users are individual and institutional clients. These platforms do not hold or sell Bitcoin themselves. Instead, they package hashrate contracts—typically for 30, 60, or 90 days—and sell them to customers, who then decide whether to hold or sell the mined Bitcoin based on their own market outlook. As a result, cloud mining farms primarily earn service fees paid by clients and do not directly bear profits or losses from Bitcoin price fluctuations.

The core competitiveness of cloud mining lies in its ability to optimize site selection and minimize costs related to rent, electricity, and labor while maintaining high deployment flexibility in response to market volatility. During bull markets, it must rapidly scale up mining equipment and facilities to meet growing demand; during bear markets, it must streamline operations and shift excess capacity to self-mining. This ability to dynamically balance operations directly determines a cloud mining company's market strength.

Cloud mining revenue is primarily driven by total network hashrate. When hashrate rises, it signals that most miners remain optimistic about Bitcoin's future price, or that more customers are purchasing cloud mining contracts. Conversely, a decline in network hashrate suggests bearish sentiment, with cloud mining's share of the total likely to decrease as well. As shown below, following Trump's tariff policy announcement on April 2, Bitcoin's average daily network hashrate even hit a historic high on April 5, surpassing 1 ZH/s for the first time. [12]

Figure 6: Changes in Bitcoin Total Network Hashrate (Jan 2025 -Apr 2025)



Gate Research, Data from: Bitcoin Hashrate 图像

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On the cost side, although mining rig prices are facing upward pressure due to tariff transmission, the cloud mining leasing model has a natural risk-buffering mechanism. Essentially, it transfers equipment acquisition costs to customers through hashrate service fees. Sometimes, clients even share hardware investment directly through mining machine hosting agreements. This cost transfer and sharing structure significantly reduces the profit margin erosion caused by rising hardware prices, compared to traditional mining models. Because of this, cloud mining farms are among the least affected sectors under the Trump administration's tariff policy.

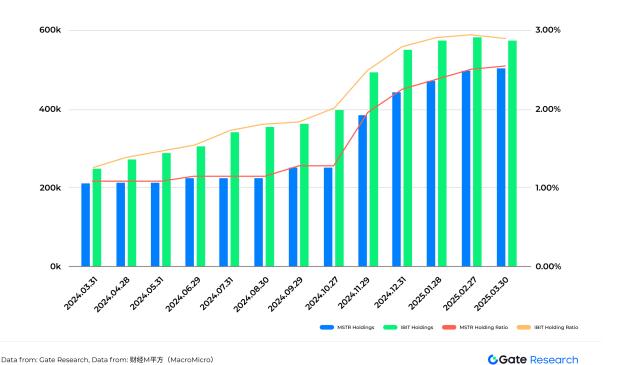
4 The Reshaping of the Bitcoin Mining Landscape and Its Impact on Bitcoin Prices

The recent decision by the United States to impose tariffs on Bitcoin mining equipment imported from China and other countries has significantly increased the operating costs for U.S.-based miners. This opens up greater opportunities for non-U.S. firms to enter the Bitcoin mining sector, as they can procure Chinese-made mining rigs at lower costs from alternative regions, thus gaining a cost advantage. Although U.S. mining firms may partially offset the impact by establishing overseas operations, it is undeniable that the tariff policy raises both operational costs and regulatory risks for domestic U.S. miners.

Based on the above analysis, with a daily Bitcoin output of 450 coins, mining activity is expected to become more geographically dispersed. As a result, major U.S. mining companies like Marathon, Riot, and CleanSpark may see a decline in their industry influence. While these U.S. firms have historically adopted a HODL strategy, the position of new international entrants regarding Bitcoin holdings remains uncertain. Many may prefer a "mine and sell" approach, where Bitcoin is withdrawn and sold on exchanges immediately after mining. From this perspective,

high tariffs are a bearish factor for the overall trend in Bitcoin prices. Moreover, the relocation of mining operations outside the U.S. contradicts Trump's earlier goal of ensuring that the remaining Bitcoin supply is "Made in America."

However, in the long term, the fundamental logic of Bitcoin pricing shifted dramatically in 2024. On one hand, spot Bitcoin ETFs such as BlackRock's IBIT, and on the other, Bitcoin-hoarding companies like MicroStrategy, continue to hold significant pricing power. As of April 2025, IBIT holds 570,983 BTC [13], while MicroStrategy holds 528,185 BTC [14]. The combined holdings of these two entities represent an increasing proportion of Bitcoin's circulating supply [15], and their purchasing power is sufficient to absorb the newly mined supply of Bitcoin on a daily basis.



5 Conclusion

The Trump administration's push for a "reciprocal tariff" policy presents a dual challenge for the Bitcoin mining industry: rising upstream costs and shifting geopolitical layout. Mining rig manufacturers are under the most pressure due to the foundry supply chain constraints and shrinking demand. Self-operated mining farms face both rising operational costs and increased capital expenditure burdens. In contrast, with their built-in risk transfer mechanisms, cloud mining farms are relatively better positioned to absorb the shock. Overall, North America's mining expansion may slow, while global hash power continues to shift toward low-tariff regions such as Southeast Asia and the Middle East, potentially leading to a temporary decline in U.S. influence within the Bitcoin ecosystem.

Mining enterprises typically require large-scale investment, operate on long cycles, and have limited risk resilience. At the same time, the Bitcoin network itself lacks mechanisms to mitigate such risks—it operates on principles of openness, fairness, and competition, not on defense, adaptation, or regulation. This creates a structural contradiction: while Bitcoin is the most decentralized asset, its supporting industrial chain is among the most susceptible to centralized policy interventions. As such, mining participants must re-evaluate the importance of policy environments. Price alone is no longer the sole consideration—policy direction, geopolitical security, energy allocation, and manufacturing stability are now critical for industry survival.

In the short term, rising mining costs and increasing "mine-and-sell" behavior may place marginal downward pressure on Bitcoin prices. However, in the medium to long term, institutional players such as BlackRock's IBIT and MicroStrategy have emerged as dominant market forces. Their continued buying power is expected to offset supply-side pressure and help stabilize market structure. Bitcoin mining is entering a crucial phase of policy reshaping and structural transition, and global investors should closely monitor the evolving regulatory landscape and the resulting hashrate migration and supply chain rebalancing.

Author: Mark,Lulu,Ken

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