

May 2021

 KAIKO | Research

Monthly Market Report

A data-driven deep dive on the month's
most significant market events.

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MONTHLY OVERVIEW

May was one of the most volatile months in crypto market history. There is never one simple reason explaining the cause of a market-wide conflagration, but Elon Musk's briefly bearish tweets along with China's crackdown on Bitcoin miners were likely the match that struck the fuse at exactly the right moment. Yet again, derivatives traders suffered billions in forced liquidations as markets spiralled in a vicious cycle that spared no asset. The month was not all bad news: there is further evidence that Ethereum's market liquidity is improving and volumes reached new all time highs. Overall, altcoin assets continued to gain market share to Bitcoin throughout May in a realignment that could fundamentally change crypto market structure.

This monthly report was written by Clara Medalie with help from the Kaiko team.

About Kaiko

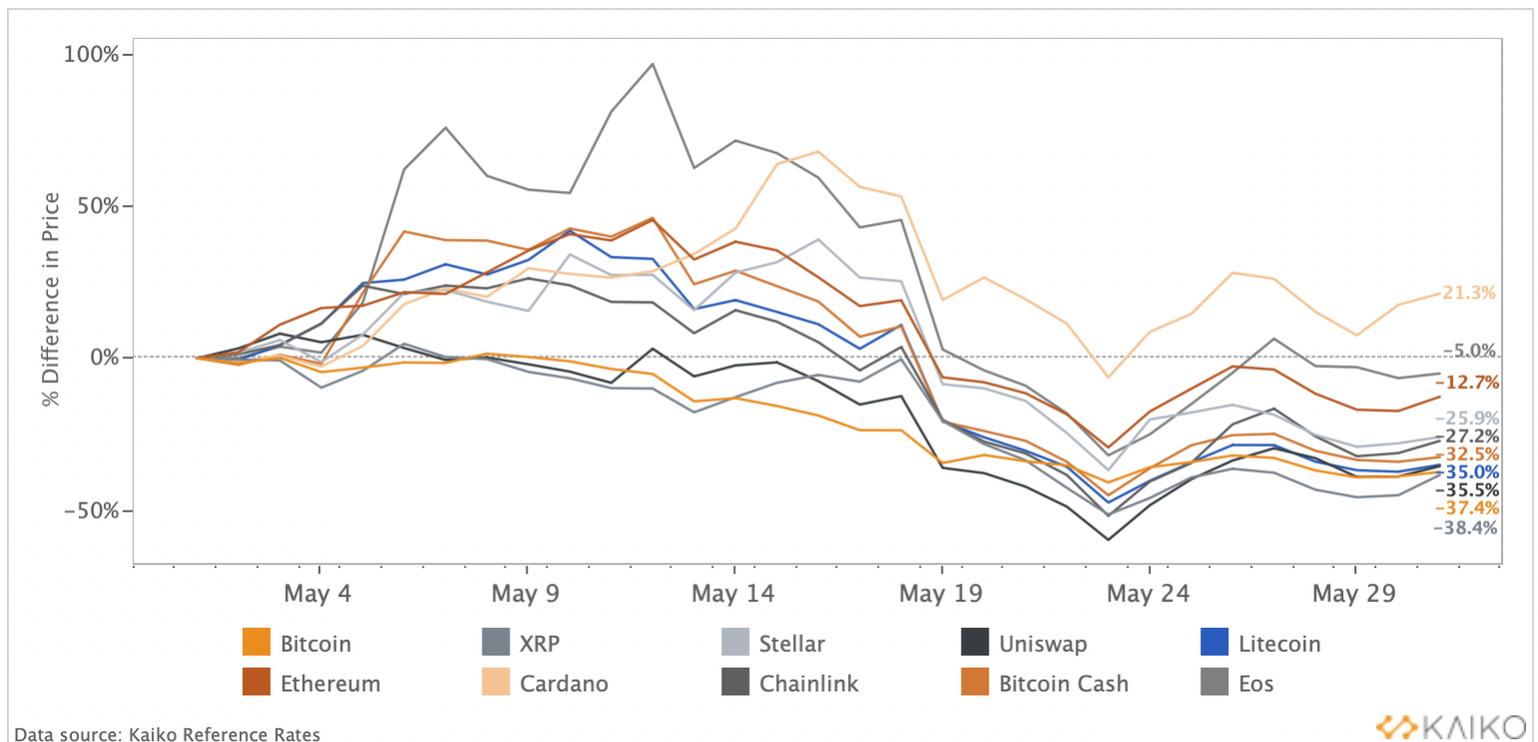
Kaiko is the leading cryptocurrency market data provider for institutional investors and enterprises. We empower market participants with accurate, transparent, and actionable financial data to be leveraged for a range of market activities. Our institutional grade data services enable seamless connectivity to historical and live data feeds across 100+ spot and derivatives exchanges. Contact us at hello@kaiko.com to learn more about our data and research services.

Volatility Spares No Crypto Asset

Both Bitcoin and Ethereum reached their highest 30D volatility since last March's market collapse. May's sell-off was in large part perpetuated by over-leveraging in derivatives markets, which triggered billions of forced liquidations as prices dipped below key support levels. In a matter of days, Bitcoin lost nearly half of its value and most of the top crypto assets closed the month down double digits. Cardano was the only top 10 asset that ended the month up, closing +21%. The good news, though, is that markets are still very much in the green year-to-date, faring better than most traditional assets. Additionally, liquidations cause markets to re-set which in the long run can improve overall efficiency.

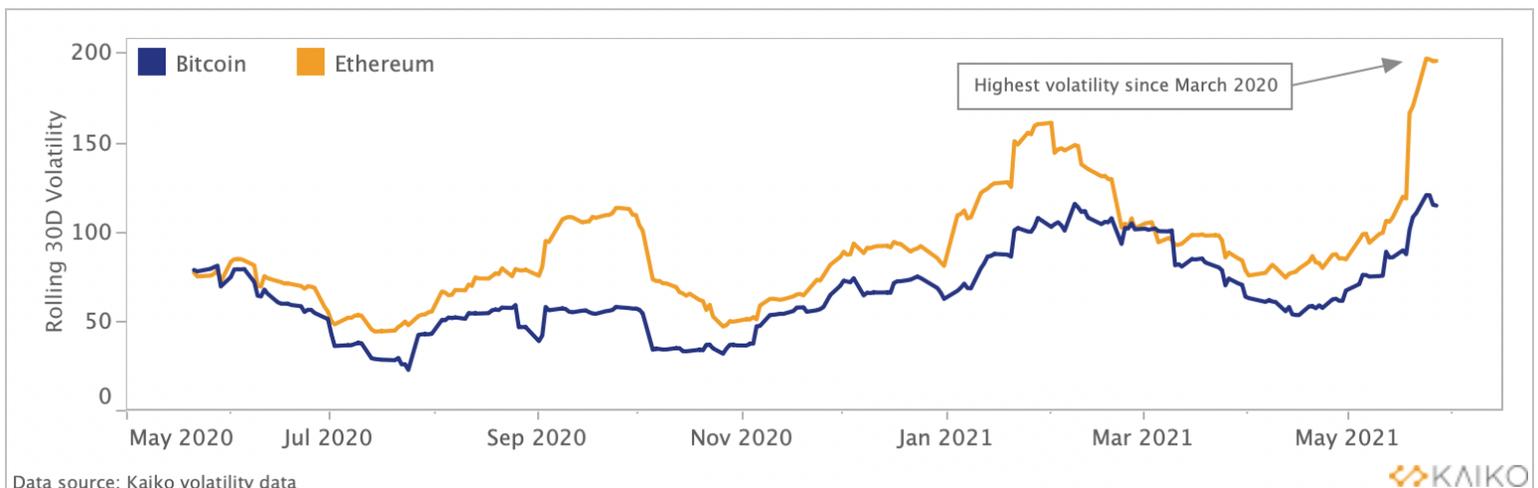
Monthly Returns

Top crypto assets



30D Rolling Volatility

Bitcoin and Ethereum

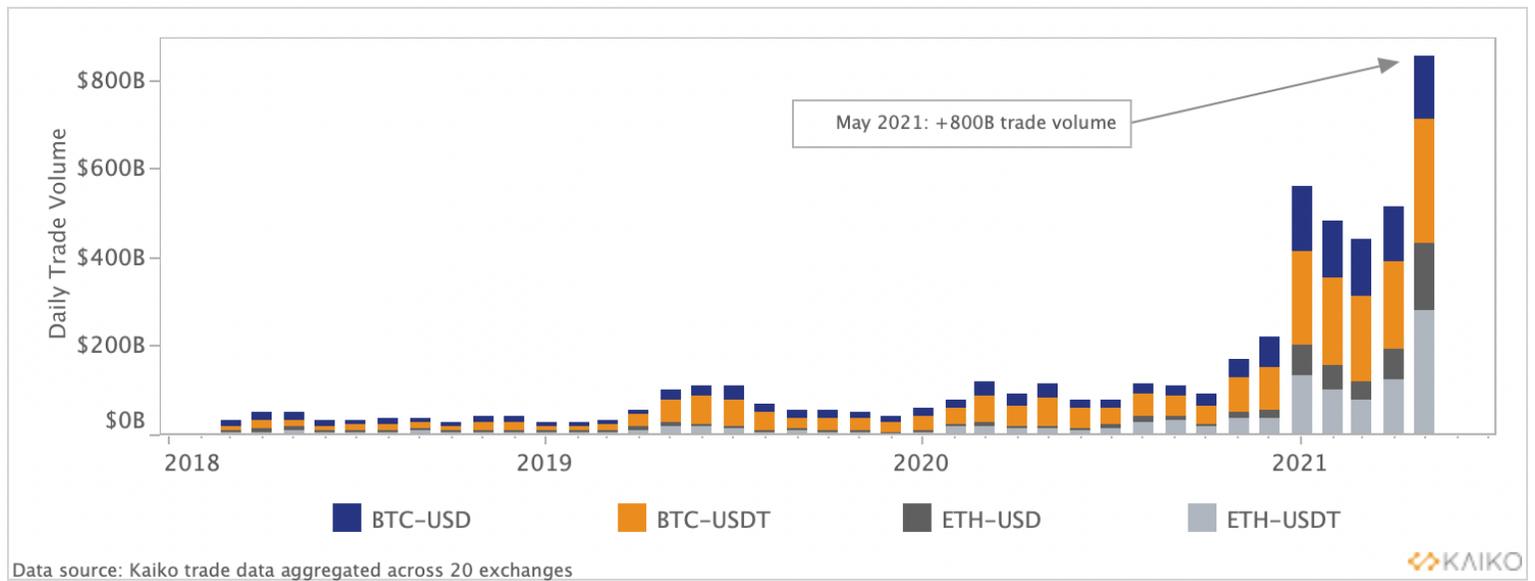


Highest Spot Trade Volume Ever Recorded

Market volatility and trade volume are directly correlated so it is no surprise that May clocked the highest spot market volumes ever recorded, more than \$200 billion higher than the next highest month. To avoid losses, traders closed their positions en masse while also aggressively "buying the dip" to take advantage of lower prices. Exchanges profited from the record trading activity, but also suffered severe infrastructure issues while processing millions of more trades than average. Coinbase, Kraken, Gemini, Binance, and Bitmex all suffered delays, lagging interfaces, or downtime on May 19th, the most volatile day this month. While crypto exchange infrastructure still lacks maturity, most exchanges were able to resolve their issues quickly on a day that in year's past would have been catastrophic.

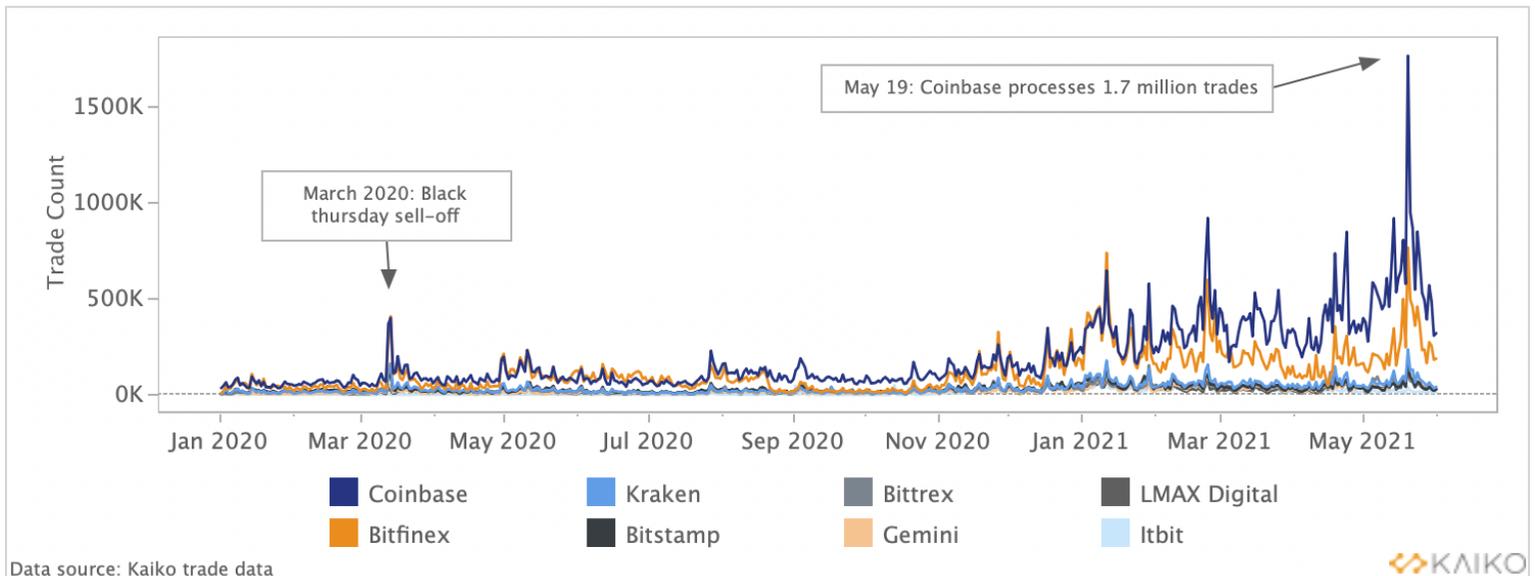
Monthly Spot Trade Volume

Aggregated volume across the top 20 exchanges, both crypto-to-fiat and crypto-to-crypto



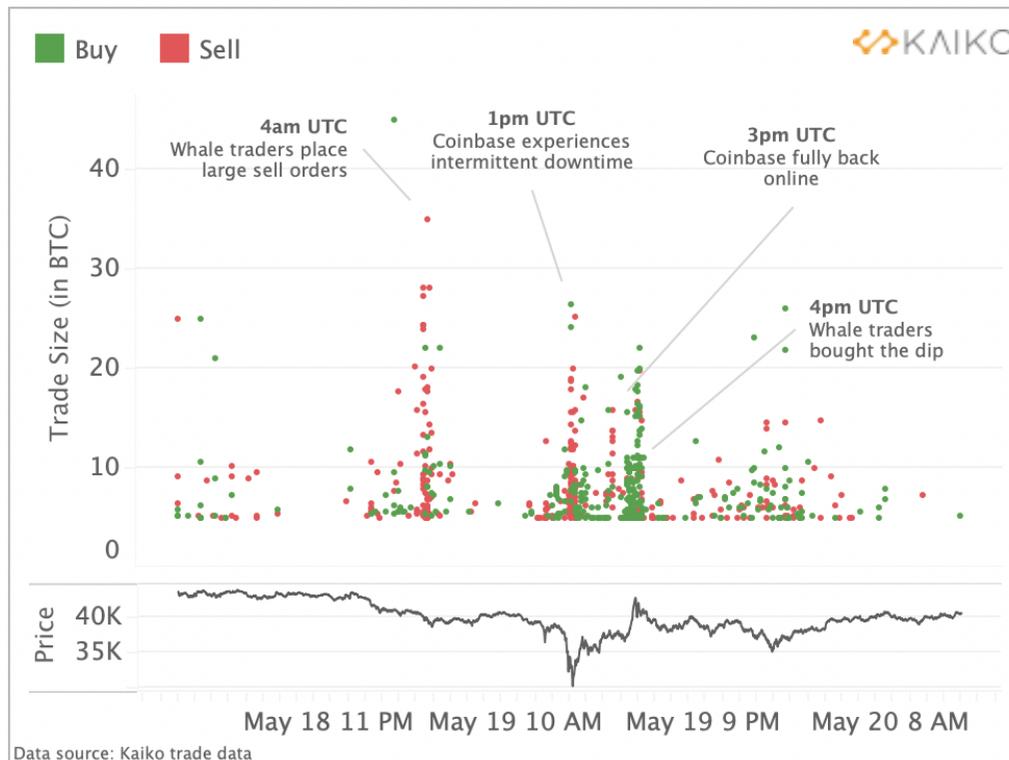
Daily Spot Trade Count

The number of trades executed for BTC-USD markets on the top fiat exchanges



Whale Trades on Coinbase During the May 19th Sell-off

All buy and sell market orders greater than 5 BTC for BTC-USD on Coinbase



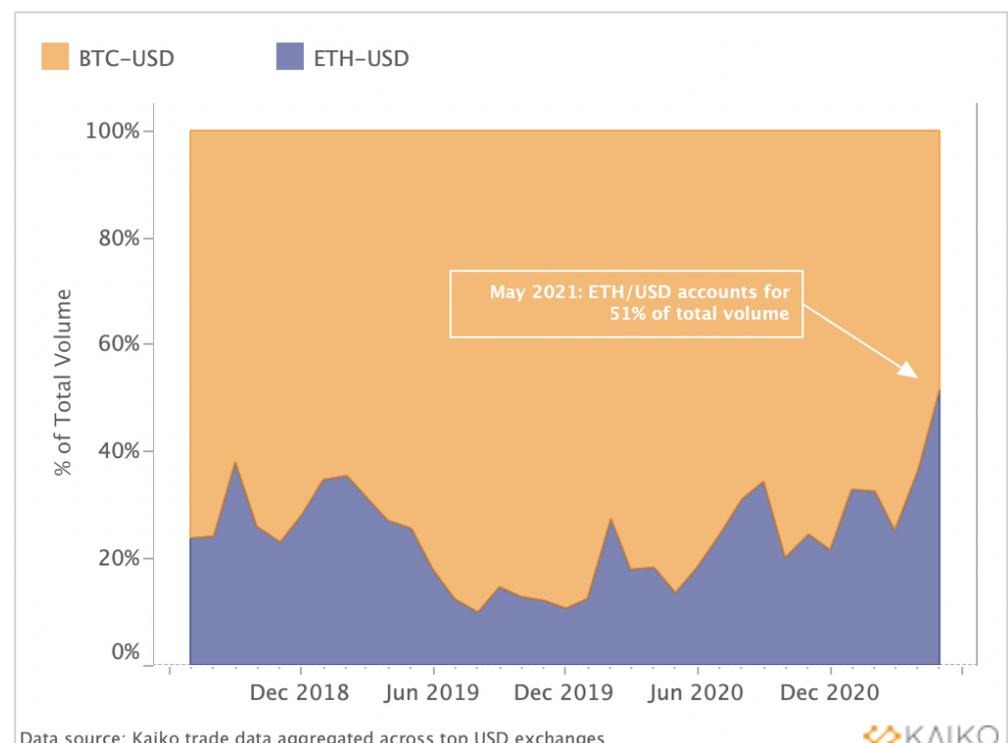
This chart depicts individual trades made by “whale traders” on May 19th before and after Bitcoin’s price crash, which gives an idea about the behavior of high-volume traders during pivotal market events. We can observe that around 4am UTC, whale traders began placing large market sell orders as Bitcoin dipped below \$40k, many valued at higher than \$500k. Nothing much happened until around 1pm UTC, when the price began to plummet and the quantity of large sell orders surged. In the aftermath of the sell-off, whale traders began buying the dip in large numbers. The data shows that larger orders can both perpetuate a sell-off and contribute to rebounds.

Ethereum Catches Up to Bitcoin

For the first time ever, the volume of Ethereum traded throughout the month was greater than the volume of Bitcoin. 51% of total volume was executed for ETH-USD trading pairs on the top fiat exchanges. In May 2020, ETH-USD accounted for just 14% of total volume. This marks a monumental shift in crypto market structure and suggests that professional traders increasingly view Ethereum as an investible asset. Over the past year, Ethereum's potential has been on full display with surging interest in decentralized finance and NFTs, of which the blockchain network serves as the infrastructural base layer. Despite scalability concerns, the network's native currency has surged to new all time highs.

Bitcoin vs. Ethereum: % of Total Volume

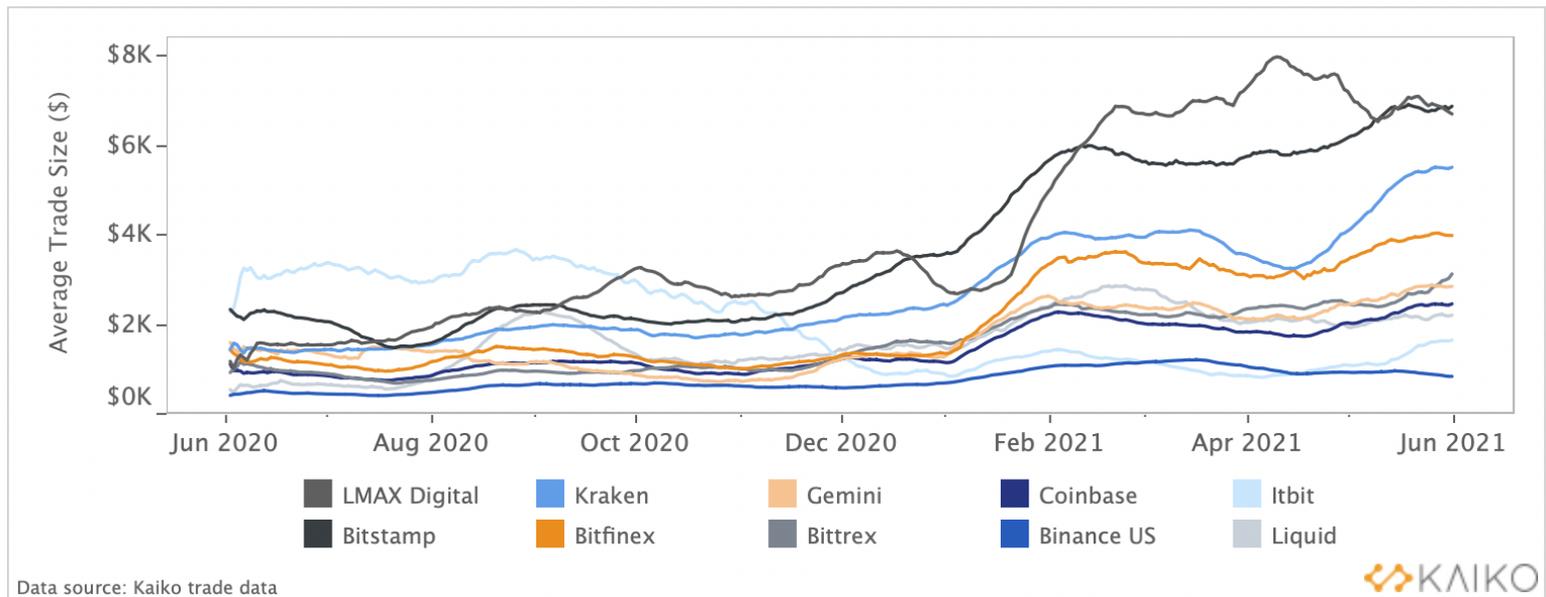
BTC-USD and ETH-USD volume aggregated across top fiat exchanges



Ethereum Average Trade Size

Volume divided by trade count for ETH-USD markets on the top fiat exchanges

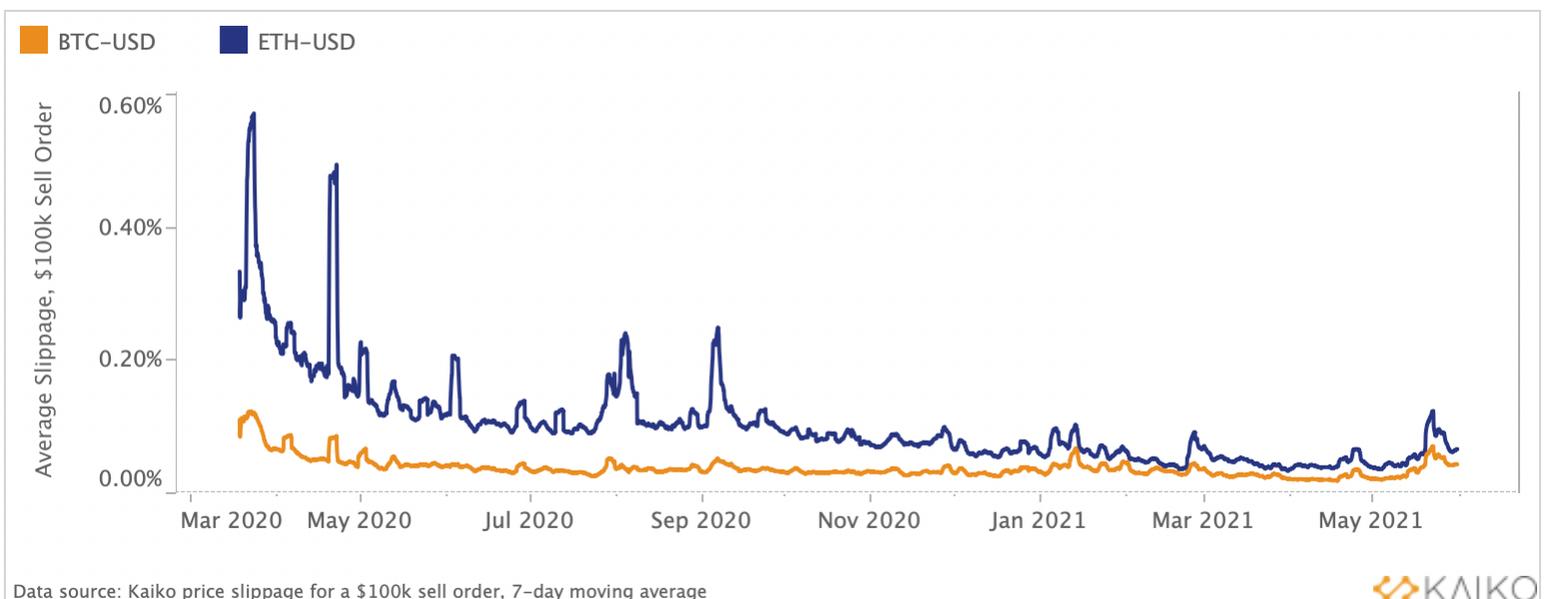
Further evidence that Ethereum is catching up to Bitcoin comes when analyzing the average trade size for ETH-USD markets on the leading fiat exchanges. On LMAX Digital, an exchange for institutional traders, the average trade size jumped from \$1.5k to \$7k since May 2020. On Bitstamp, from \$2k to \$7k, on Kraken from \$2k to \$6k, on Bitfinex from \$1.8k to \$4k, and so on. This suggests that the profile of the average ETH trader has shifted significantly over the past year, placing higher market orders on average. This data does not account for broken apart orders.



Average Price Slippage for a \$100k Sell Order

Averaged across Bitstamp, Coinbase, Bitfinex, Gemini, Kraken and Itbit for ETH-USD and BTC-USD markets

Over the past year, liquidity for Ethereum-Dollar markets has improved significantly and is now nearly on par with that of Bitcoin. Price slippage measures the difference between the expected price of a trade and the average price the full order is filled, and a lower measure typically means that a market is more liquid and better able to support large orders. For ETH-USD markets, simulated price slippage for a \$100k sell order has fallen drastically and now hovers just above the average slippage for BTC-USD markets

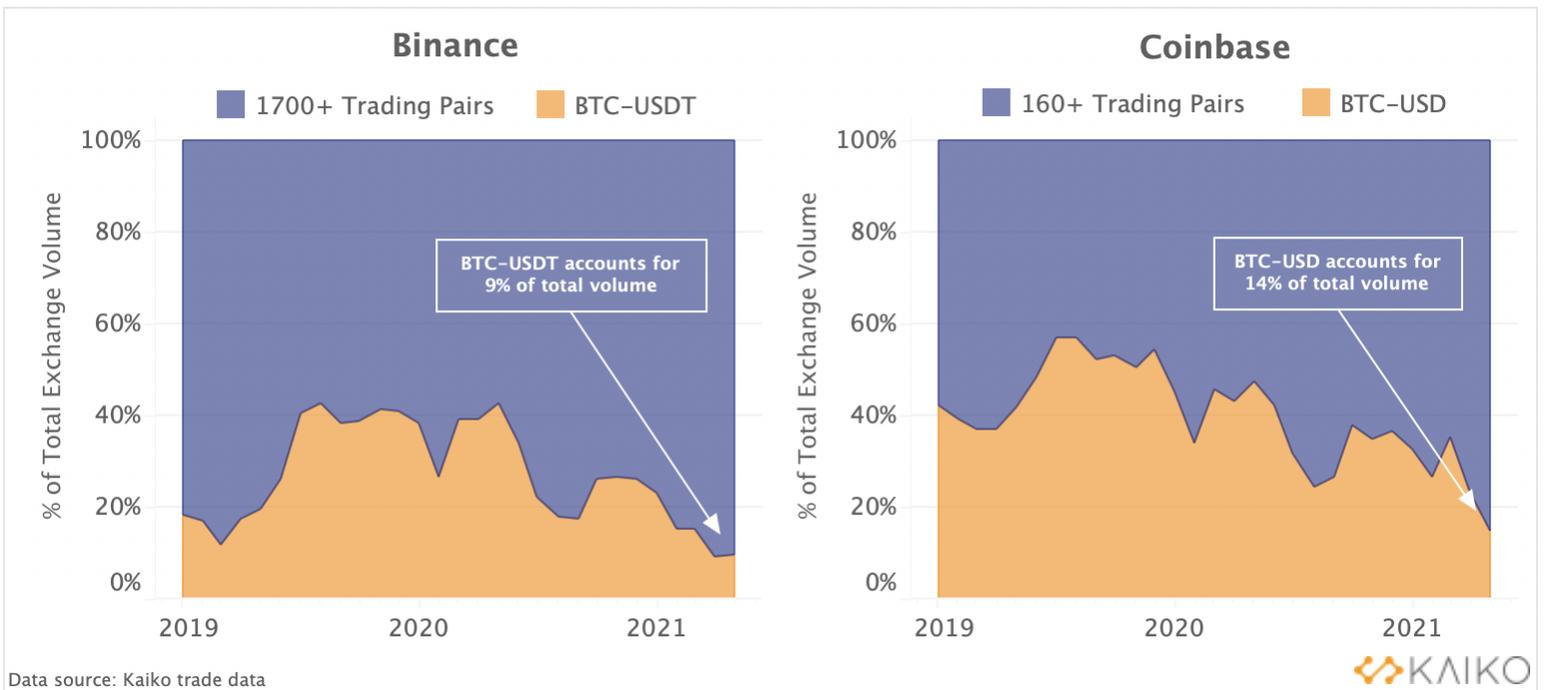


Altcoin Dominance Surges

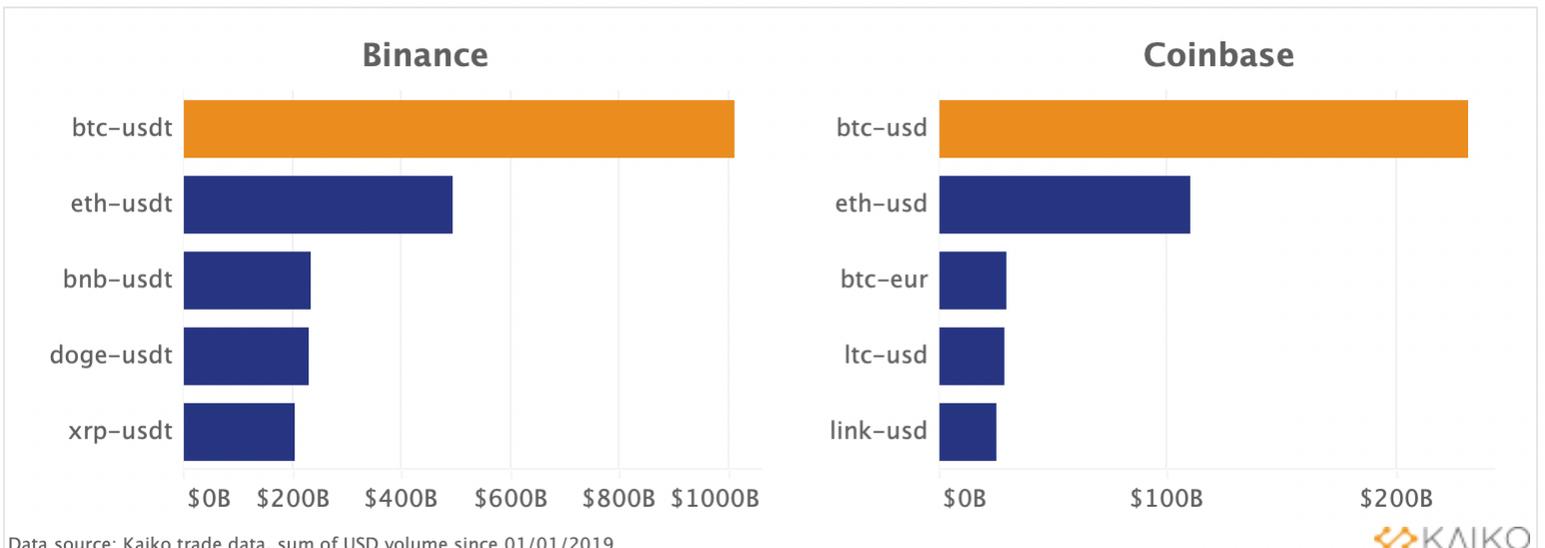
It is more than just Ethereum that is gaining market share to Bitcoin. On nearly every exchange, the total volume of altcoin markets has surged relative to BTC-USD or BTC-USDT markets. This isn't the first "altcoin season", a period of time when altcoin markets gain market share to Bitcoin. However, none has ever resulted in such a dramatic shift in market structure as what we can observe today. This trend has emerged on both crypto-to-fiat exchanges like Coinbase and crypto-to-crypto exchanges like Binance. On Binance, 2019 marked the last "altcoin season", which saw altcoins capture 88% of total volume. Today, altcoins capture more than 90% of total volume, a new record. The trend is even sharper on Coinbase, which has historically catered for more institutional traders that typically favor Bitcoin and top 10 assets. Today, altcoin pairs account for 85% of total volume, the highest percentage yet.

% of Total Exchange Volume

USD volume calculated for all trading pairs compared with each exchange's highest volume Bitcoin pair



Top 5 Pairs Ranked by Cumulative Volume Since 2019

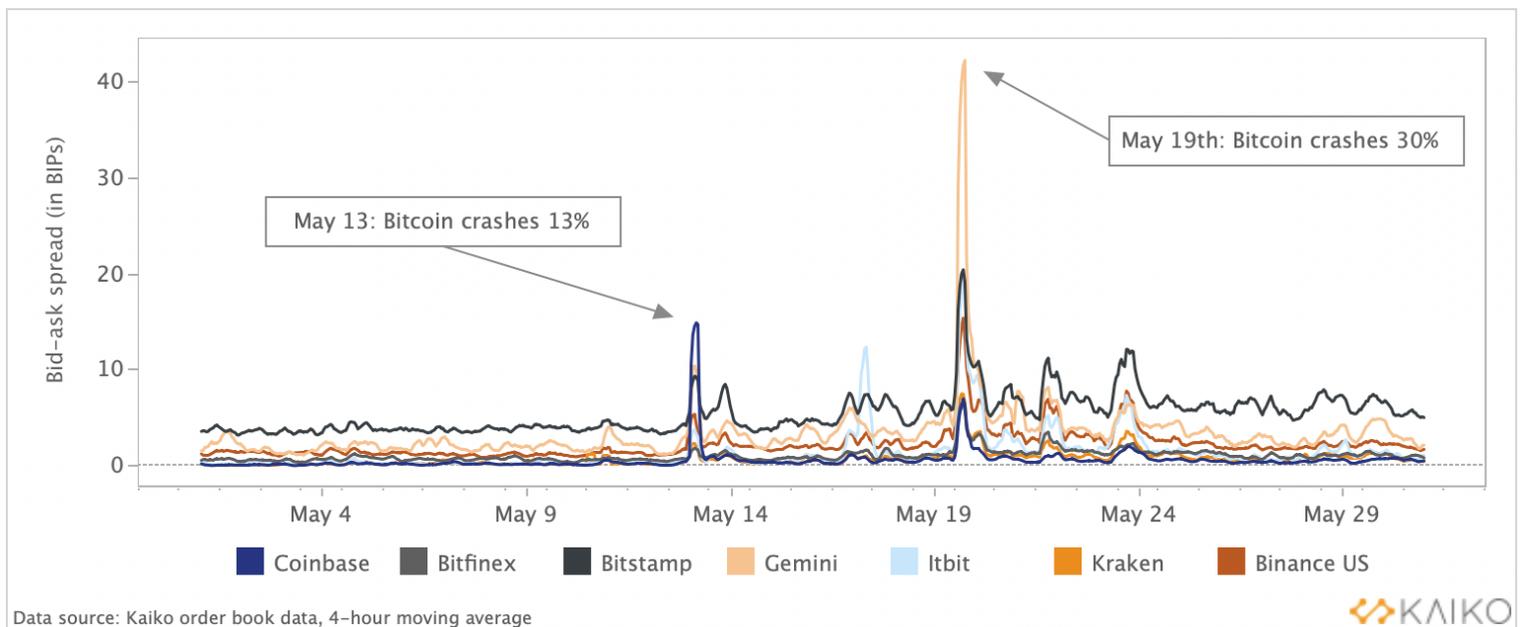


Spot Liquidity Suffers During Sell-Off

Price and volume data are only one side of the story—order book data shows the underlying impact that a liquidation cascade has on spot markets. Market makers supply liquidity to order books and when spooked by volatility, they will often pull limit orders en masse. This is almost always done algorithmically which is why from one second to the next, market depth can evaporate. As prices crashed on May 19th, market depth on BTC-USD order books plummeted. Spreads briefly spiked 10x on nearly every exchange analyzed. On Coinbase, spreads surged from .15 to 15 basis points as liquidity evaporated during the May 13th sell-off. Order book liquidity is crucial for price discovery which is why these market events can perpetuate price declines.

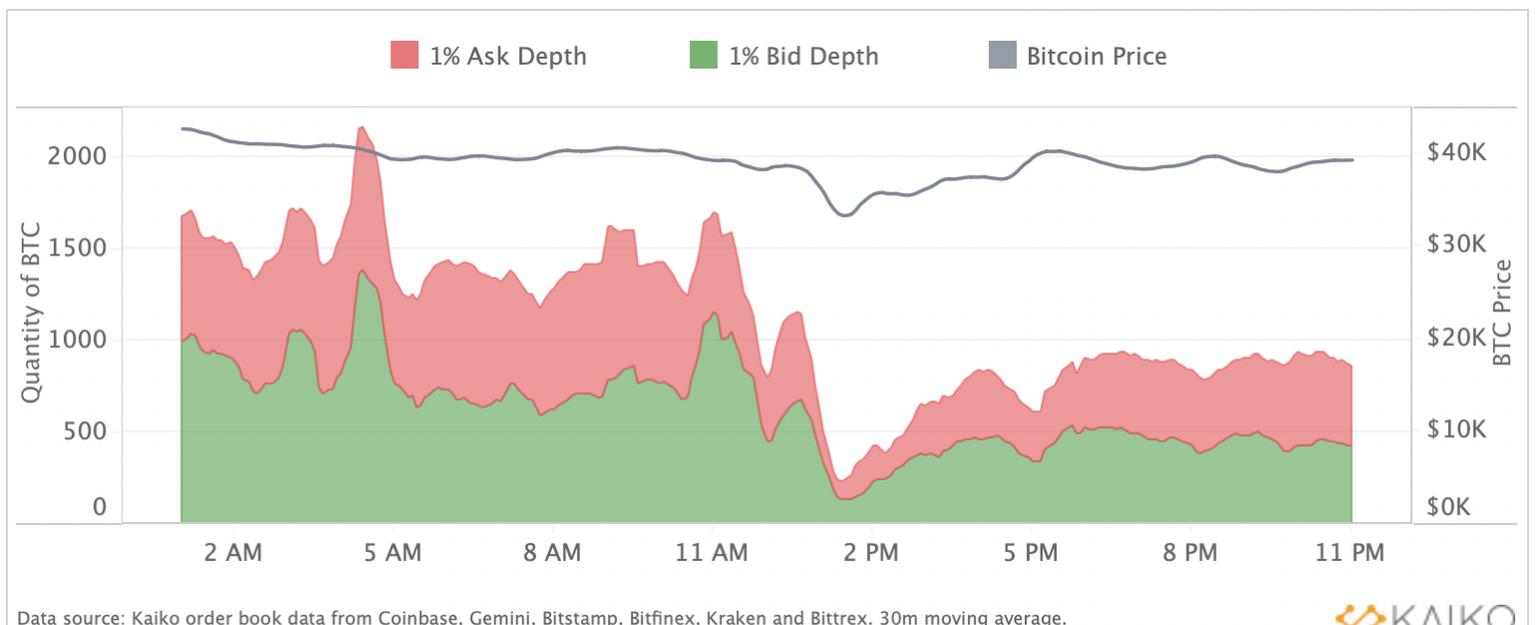
Bid-Ask Spread

Average spread at hourly intervals for BTC-USD markets on the top fiat exchanges



Market Depth During the May 19th Sell-Off

Average depth at 5 minute intervals, aggregated across 6 top fiat exchanges

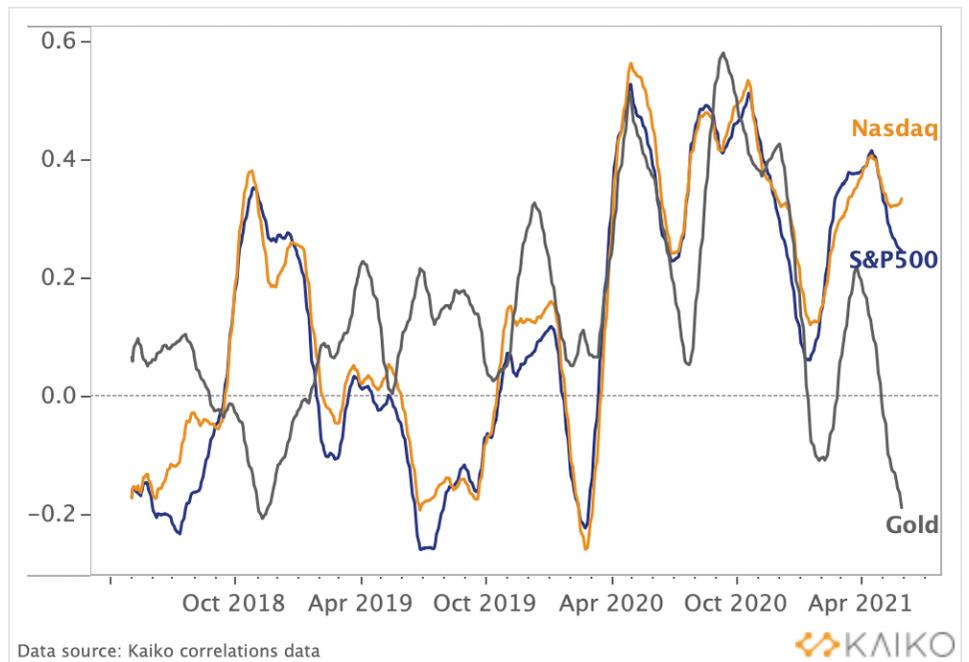


Digital Gold Narrative Falters

Bitcoin has always been likened to digital gold for its similar store of value properties. As global financial markets collapsed in March 2020, Bitcoin and gold rose to their strongest correlation yet and for much of 2020, this correlation held strong. However, as markets re-align and the pandemic nears an end in the United States, this correlation has dipped to its lowest point since 2018. The pandemic created unique market conditions that saw equities, gold and Bitcoin closely correlated. We can now observe a pre-pandemic trend between equities and gold setting in. Today, Bitcoin's correlation with both asset classes is either negative or weak.

Bitcoin's Correlation With Traditional Assets

30D rolling correlation of returns



May Market Report

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