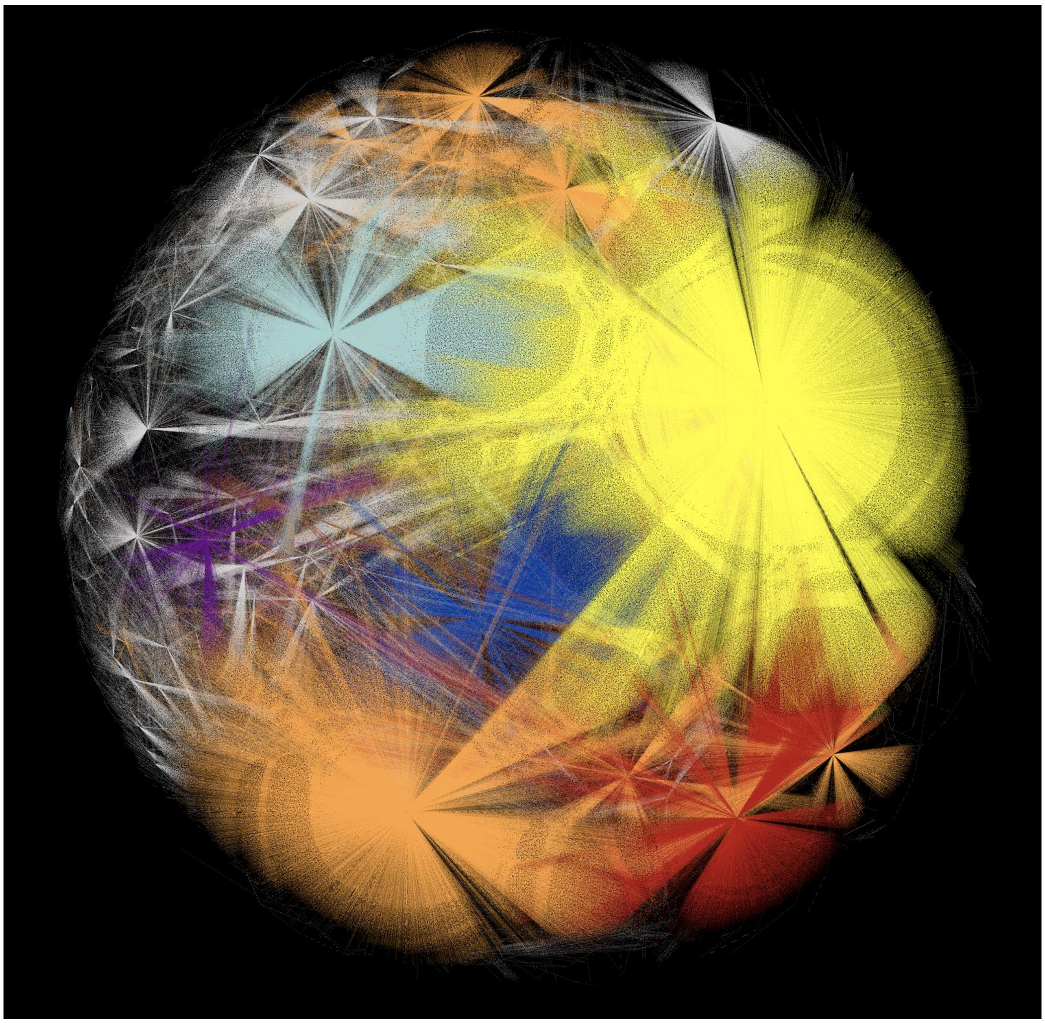
What is Driving Tether's Growth and What Financial Institutions Could Learn From It



A Visualization of the Tether Network

Tether, the most well-known 'stable cryptocurrency', has experienced explosive growth over the past 12 months, even as activity on other cryptocurrencies has declined. This research report uses Chainalysis data to show that Tether, which is tied to the US dollar, is growing because **it has bank-like properties, acting as a "cryptocurrency bank" for traders**. A cryptocurrency bank provides a stable place to store funds, like banks provide in the traditional fiat world, in addition to offering seamless, low cost and instantaneous transactions directly within the cryptocurrency ecosystem.

Transacting between the fiat world and the cryptocurrency world is currently not easy. Users incur a significant lag time and pay high fees when moving money from fiat currencies to the cryptocurrency space. The explosive growth of Tether reveals how financial institutions are not meeting the banking needs of the cryptocurrency world. Instead new institutions have experimented with solutions that have unfortunate side-effects. For example, Tether appears to enable illicit price manipulation - such as the "pumping and dumping" of low-volume cryptocurrencies, artificially inflating their value only to quickly turn around and sell them off for a profit - which in turn hurts confidence in the cryptocurrency sector.

It is likely that in a few years, the price manipulation of low-volume cryptocurrencies will fade; yet Tether could still serve an important need unless traditional financial institutions evolve. For this to occur, the regulatory environment will need to evolve as well, to protect and serve consumers in an increasingly cryptocurrency-based world.

Our conclusions about Tether are based on the following key findings:

1. **Tether activity has grown exponentially over the past 12-months, with notable gains throughout 2018 as other cryptocurrencies have experienced declines.**

- Traded volumes for USDT pairs on "Tether accepting" exchanges have grown more than 15x between October 2017 and March 2018. Traded volumes for USD pairs on non-Tether exchanges grew just under 3x over this same time period.

2. **Tether serves as a cryptocurrency bank for traders by allowing individuals to store cryptocurrencies at a stable value on nearly 30 exchanges, although activity is highly concentrated on fewer than 10 exchanges.**

- After issuance, all Tether passes through the Bitfinex trading platform, Tether's only direct client, and 80% of newly issued Tether then moves to seven exchanges.

- Tether is then used almost exclusively for trading. 73% of all Tether on-chain transaction volume is going to exchanges, with only 27% being sent from exchanges, indicating that most tether is used for trading.

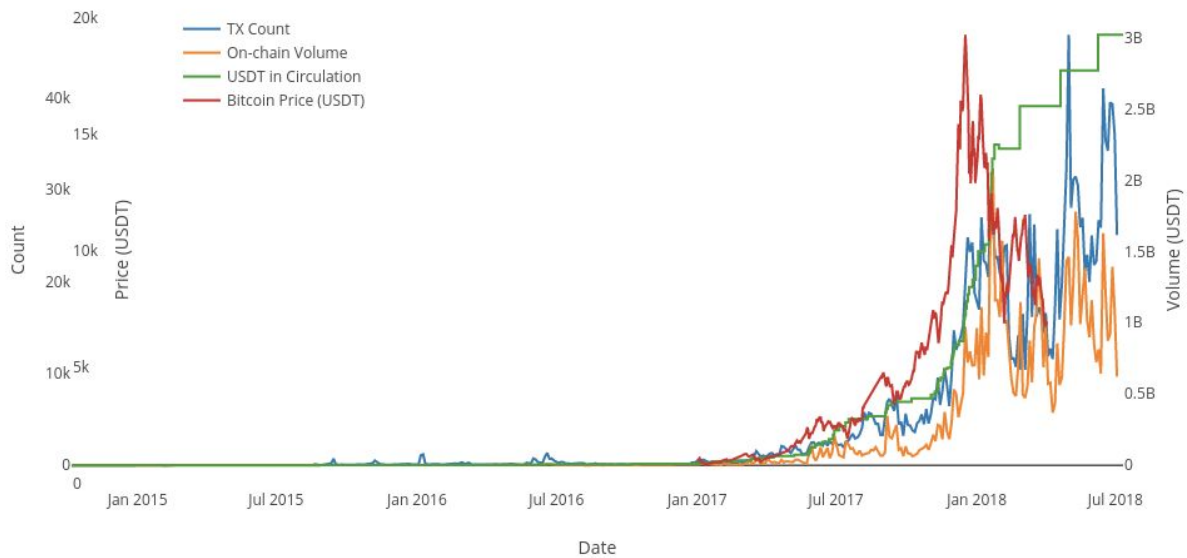
3. **Tether activity has changed over the past 12 months as it shifts away from being traded against Bitcoin and Ethereum, and increasingly towards low-volume cryptocurrencies and, at times, pump and dump schemes.**

- The way traders use Tether has been changing over the past year. Through January 2018, Tether on-chain transaction volume was highly correlated with Bitcoin, Ether, and Litecoin transaction volumes (reaching nearly 75% correlation), implying individuals were making bets on these top cryptocurrencies. Since early 2018, however, Tether transaction volumes have become more correlated with newer, less established cryptocurrencies such as EOS, NEO, and Decred, to name a few.
- Analysis of Tether trading pairs reveals Tether is being used for pump and dump activity. The share of Tether trading volume going to low-volume cryptocurrency pairs has grown from 6% in November 2017 to nearly 20% by April 2018.

Tether activity has grown exponentially over the past 12-months, with notable gains throughout 2018 as other cryptocurrencies have experienced declines.

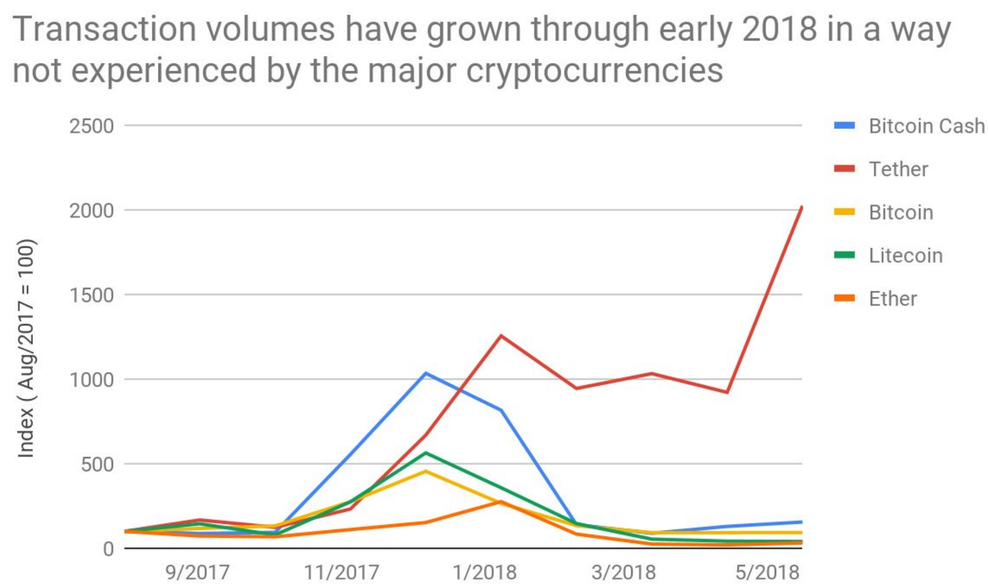
Beginning in mid-2017, Tether has experienced explosive growth in traded volumes, on-chain transaction volumes, the number of tether transactions, and the amount of tether units issued. Tether on-chain transaction volumes spiked during the week of January 21st of 2018 topping $1.5 billion, shortly after the cryptocurrency boom that pushed Bitcoin prices up to nearly $20,000. But unlike other cryptocurrencies these volumes have continued to rise through late May. On May 1st the number of transactions being sent on the network reached all time highs, nearing 50,000 transactions.

Tether has experience explosive growth on all metrics, even during the 2018 bear market



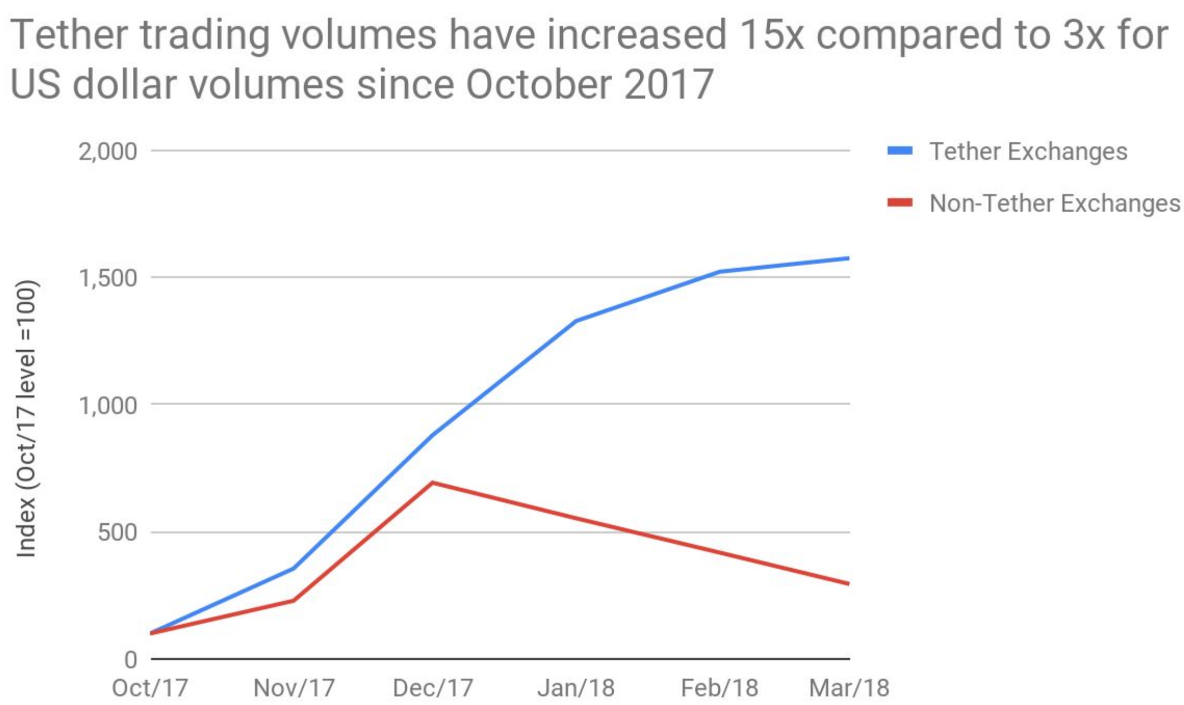
Source: Chainalysis; Poloniex's Bitcoin price data

Tether's unique surge in activity in the first half of 2018 was not seen in other cryptocurrencies. While many of the leading cryptocurrencies saw large surges in volumes through the end of 2017, they have experienced continued sell-offs through 2018. Tether has been powered by high levels of transaction volume as late as May 2018.



Source: Chainalysis, Coinmetrics

This trend is also present in the trading data. Not only did Tether trading volume grow through 2018, but the total volumes on exchanges that accept Tether also grew in a way not seen on non-Tether exchanges and by non-Tether cryptocurrencies. While it is hard to determine the extent to which Tether single handedly enabled this growth, Tether has certainly lubricated the market by boosting available liquidity.

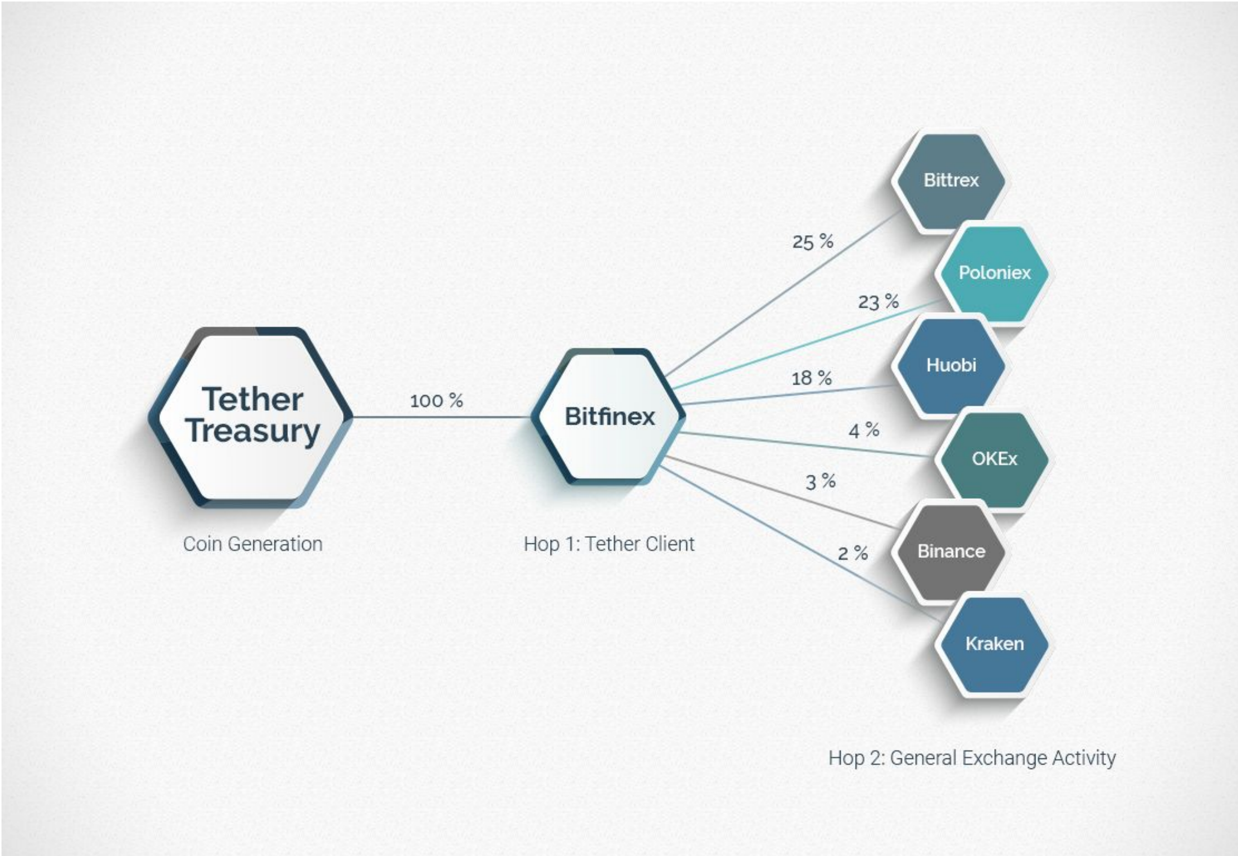


Source: Kaiko

Note: Kraken and Bitfinex, and BitMex were excluded from the data. Kraken is largely an exchange dealing with fiat currency pairs, thus not falling in either category completely. Bitfinex ceased allowing Tether trading but allows Tether withdrawals so also does not fit in either category. BitMex was excluded as it is a derivatives market rather than a spot trading market for bitcoin.

Tether serves as a cryptocurrency bank for traders by allowing individuals to store cryptocurrencies at a stable value on nearly 30 exchanges, although activity is highly concentrated on fewer than 10 exchanges.

This growth is even more staggering considering that activity is largely happening on a few exchanges. Chainalysis confirmed that all Tether issued by the Tether Treasury passes through Bitfinex, and then 80% moves directly to a handful of Tether accepting exchanges: Bittrex, Poloniex, Huobi, OKEx, Binance, and Kraken as illustrated below.



Source: Chainalysis

Tether is used almost exclusively as a token to facilitate trading, as evidenced by analysis of exchange activity. 91% of all Tether on-chain transactions involves an exchange, with 73% of all Tether balances sitting on exchanges. Almost 75% of this transaction activity is exchanges receiving tether, and only 25% involves exchanges sending tether. Furthermore, **exchanges that accept Tether are highly interconnected with each other.** 46% of all transaction volume is between two "tether accepting" exchanges. The greatest volume is generated from Bitfinex sending Tether directly to Huobi, Bittrex, and Poloniex.

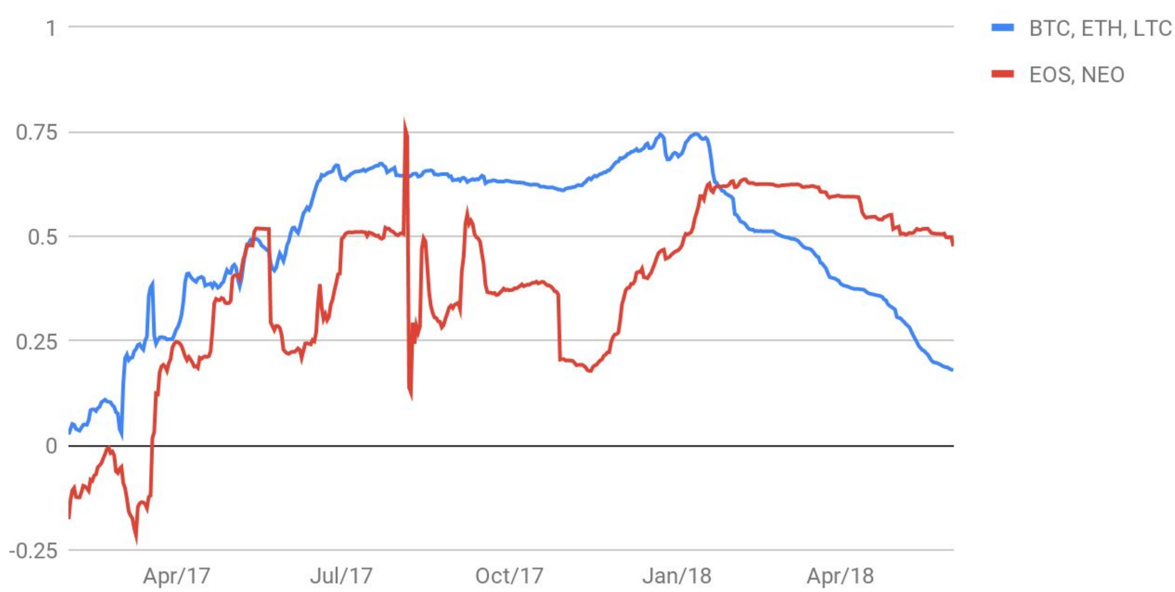
Even though very few exchanges offer Tether trading, some of the exchanges that do so have substantial amounts of their total trading activity using Tether pairs. This means that their success is tied to fate of Tether. Around 70% of Huobi's past 24 hour trading volume[1] on Coinmarketcap, for example, was in Tether denominated trades.

[1] Updated on July 3rd from coinmarketcap.com

Tether activity has changed over the past 12 months as it shifts away from being traded against Bitcoin and Ethereum, and increasingly towards low-volume cryptocurrencies and, at times, pump and dump schemes.

Tether transaction volumes have been increasingly correlated with "high-growth" cryptocurrencies with historically lower trading volumes. Up until the peak of the crypto-boom of late 2017, Tether's on-chain transaction volume was highly correlated across our entire sampling of cryptocurrencies. The major cryptocurrencies (BTC, ETH, LTC) all had correlations with Tether above 85%. High correlations between assets is typically an indicator of a bubble. After the bubble burst in December 2017 and January 2018, the correlation across all the measured coins and Tether decreased by an average of 93%. Yet during this time - from January 15th - June 2nd of 2018 - Tether remained correlated with the high-growth cryptocurrencies EOS and NEO. In other words, while on-chain transaction activity was in decline for the major cryptocurrencies, traders were still seeing opportunities for profit with some of the newer, lower volume cryptocurrencies.

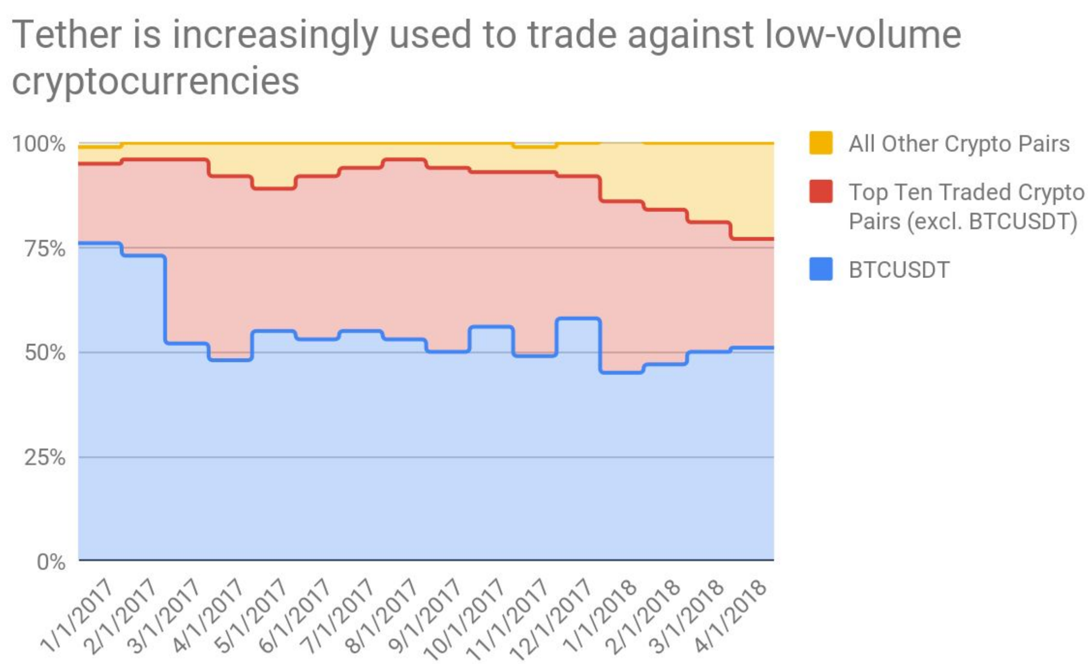
Tether's transaction volume is becoming less correlated with the major cryptocurrencies and increasingly correlated with EOS and NEO



Source: Chainalysis, Coinmetrics

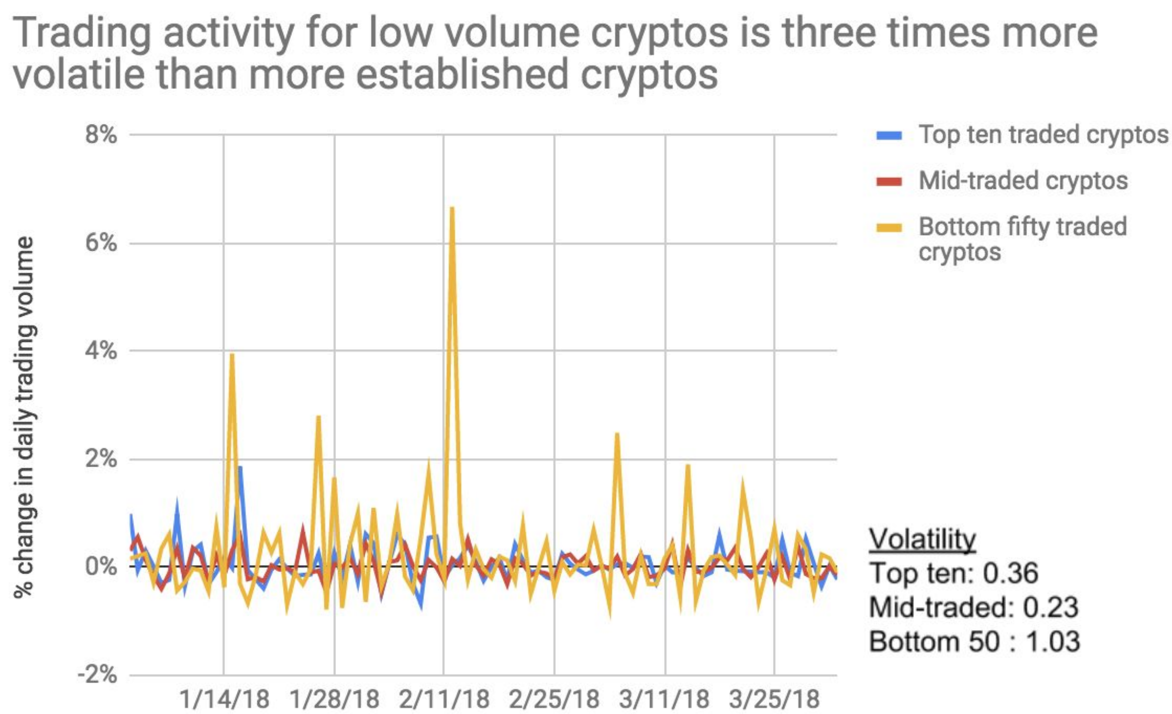
Correlations are based on daily transaction data from Chainalysis and Coinmetrics. Trends in above charts were calculated by correlating all of January 2017 and gradually adding another day to the data until the last observation on June 2, 2018 correlated all previous data. Correlations were calculated using [covariance(r_x,r_y)/($std_x std_y$)].

Indeed analyzing trading data on exchanges, provided by Kaiko, reveals that throughout the first half of 2018, Tether has been increasingly traded against lower-volume cryptocurrencies, which captured nearly 20% of all Tether trades as of April 2018. The BTC-USDT trading pair saw major declines in early 2017 but has since stabilized, consistently capturing around 50% of all Tether trades. Trades against tether from the top ten cryptocurrencies below BTC in terms of traded volume, however, has been consistently in decline. ETH-USDT trades have seen the greatest declines, peaking at 25% of all tether trades in July 2017, and then declining to only around 11% of all trading pairs in 2018.



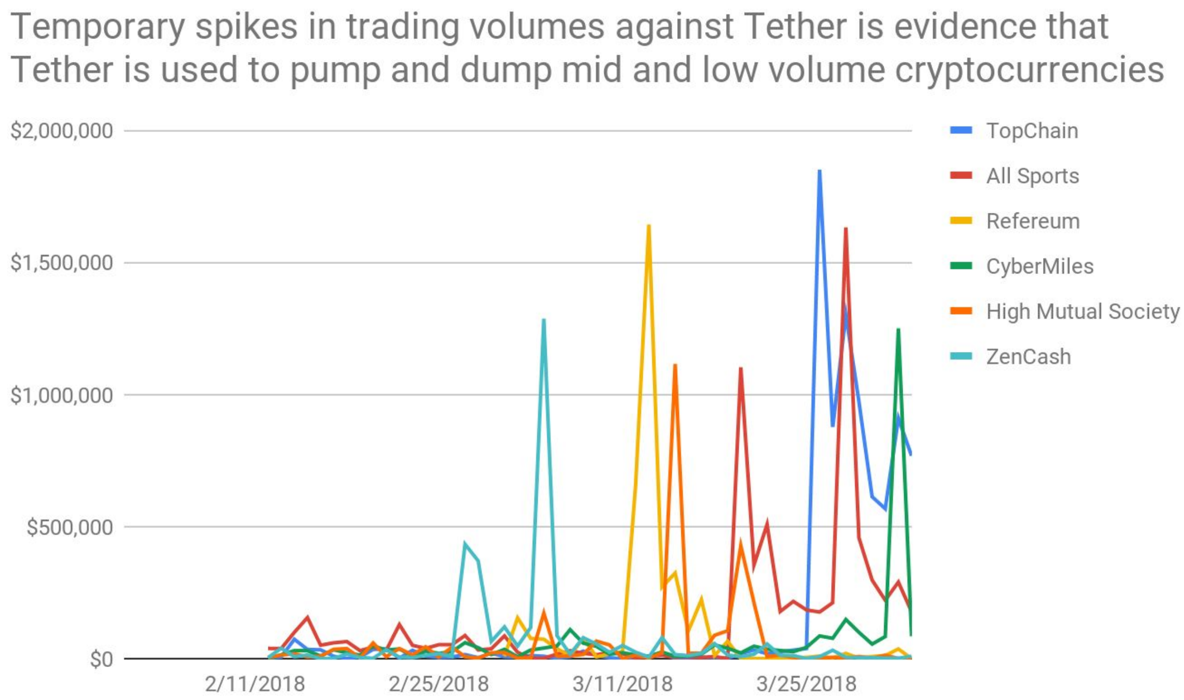
Source: Kaiko

The high volatility of the low-volume risky assets is evidence of pump and dump activity. The volatility on the low-volume pairs is nearly 3x that of the high-volume pairs and over 4x that of the medium-volume pairs. High volatility for low-volume Tether trading pairs is a typical sign of pump and dump activity; i.e., a sudden spike in a particular trading volume followed by an abrupt decline is characteristic of price manipulation.



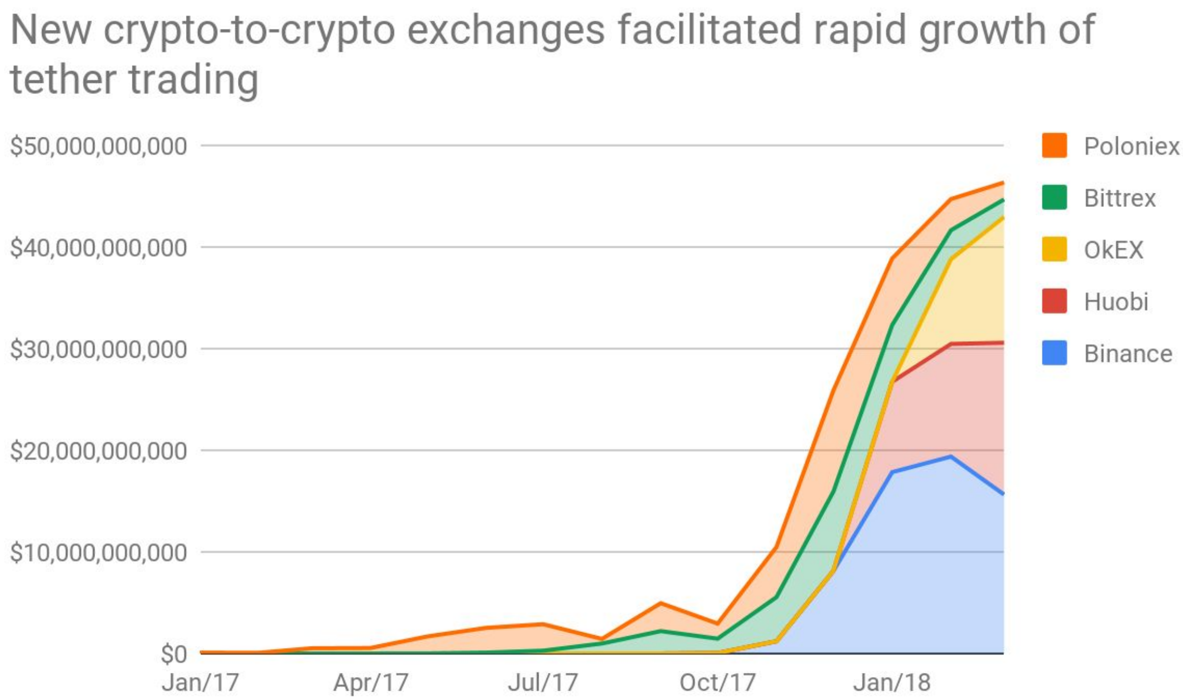
Source: Kaiko

As further evidence below, Tether is used to rapidly increase trading volumes on mid-volume and low-volume cryptos in a classic sign of pump and dump schemes. Furthermore, the below spikes cannot be attributed to growth in these particular cryptocurrencies in general. For example, the Refereum spike on March 12, 2018 was only present in the Refereum-Tether trading pair and not in the other available Refereum trading pairs, such as Bitcoin and Ether.



Source: Kaiko

Finally, the transaction and trading volume spikes have been driven in part by the growing number of exchanges dealing with the low-volume cryptocurrencies associated with the ICO bubble. Binance opened in September 2017 and quickly became a leading force in the cryptocurrency trading world by offering many of the low volume cryptocurrency trading pairs. OKEx started support for Tether in February 2018 as well, and quickly became one of the largest Tether trading exchanges in terms of volume. The role of Tether in the success of these crypto-to-crypto exchanges appears clear, and suggests that there is a strong need for stablecoins to facilitate crypto trading more broadly, even if Tether has been used for pump and dumps in some cases.



Source: Kaiko