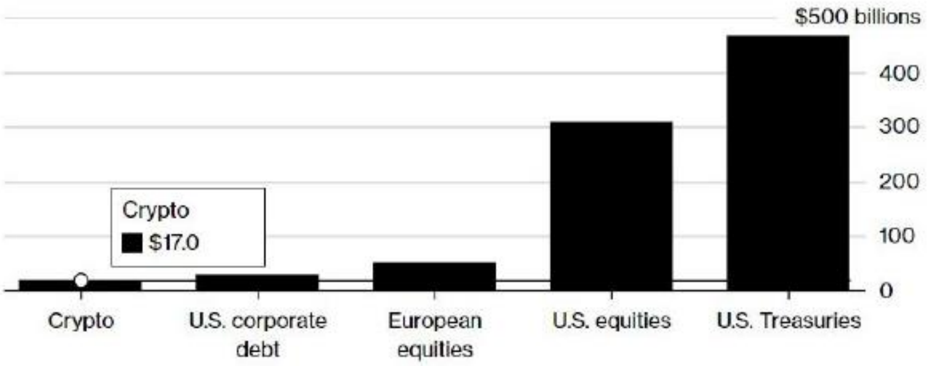
How liquid are cryptocurrencies?

There are more than 1000 cryptocurrencies (Bitcoin, Ethereum, Litecoin…). They are not issued or regulated by a central authority (decentralized network).

How cryptocurrencies' average daily traded volume over 30 days compares with major traditional segments

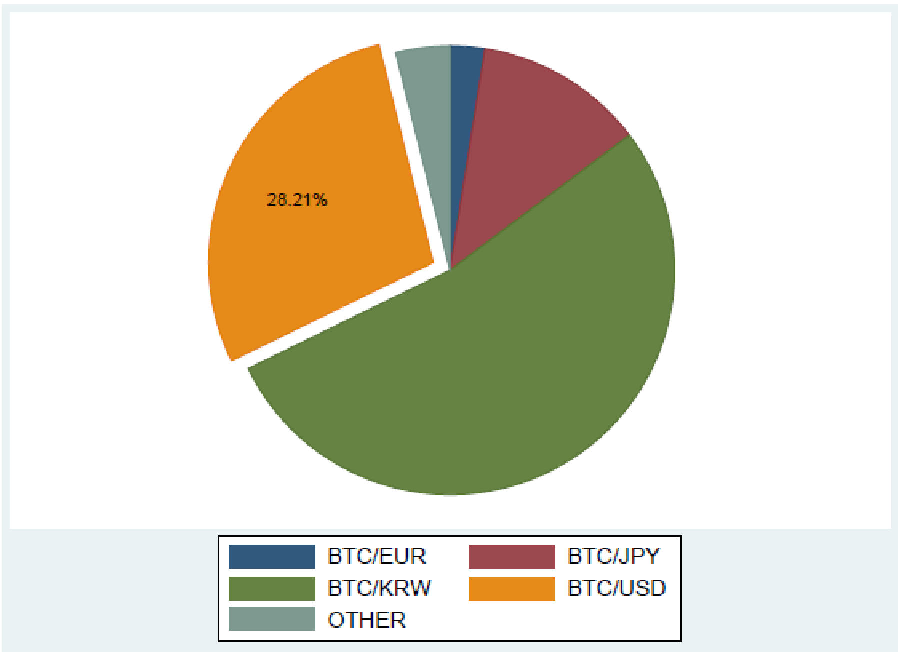


Source: Sanford C. Bernstein note citing CoinMarketCap, CBOE, Coindance, SIFMA

They can be converted to fiat currencies and traded on exchanges that are open 24/7, and are not regulated (yet). These exchanges are privately owned and operated. Revenues generated from crypto-exchanges could be as much as $4 billion in 2018 (Sanford C. Bernstein and Co., in Bloomberg, Aug. 2018). These exchanges include Bitfinex, Bitstamp, Coinbase, etc.

The most well-known cryptocurrency is Bitcoin, which was launched in January 2009 with an initial transaction of 50 bitcoins. As of now, more than 18.59 million bitcoins are in circulation (89% of maximum supply). Around 3m bitcoins were permanently lost. More than 100,000 companies accept bitcoins (among them Paypal). 10 million people hold a material amount of them as financial asset.

According to www.coingecko.com, BTC (Bitcoin)/USD transactions only represent 28.21% of Bitcoin conversion to fiat currencies.



The fraction of volume traded in each country is represented in the figure below.

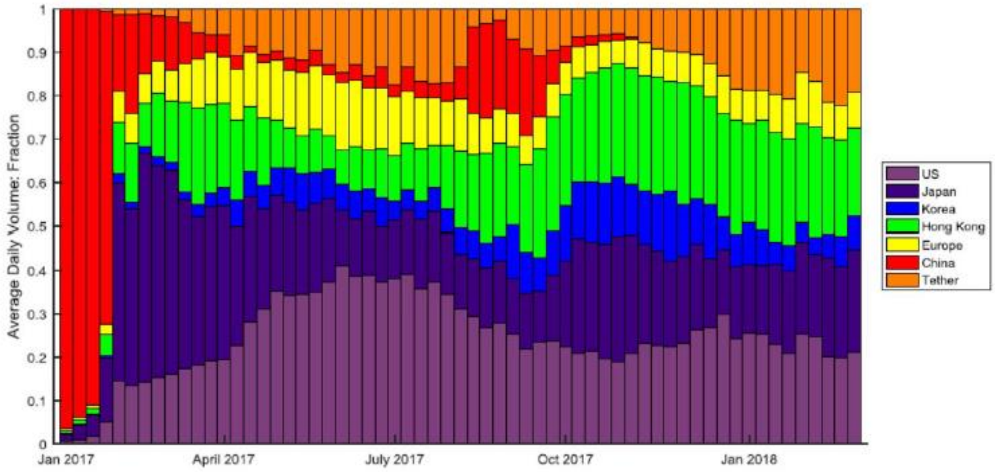


Figure 2. Volume shares. This figure shows the fraction of total bitcoin volume to fiat currency from January 2017 until February 28th 2018 across all 15 exchanges in the Kaiko data. The fraction of volume that is generated on exchanges in different regions is indicated with different colors. The regions are China, Europe, Hong Kong, Japan, Korea, US and Tether.

The Bitcoin market is considered an illiquid market but bid-ask spreads are below 10bp. In comparison, on average, it is above 10bp for the constituents of the French SBF120 index, 12bp for European corporate bonds (ESMA, 2018) and 18bp for commodities (Marshall et al., RFS, 2012).

Cryptocurrency exchanges have also been accused to report inflated volume numbers, or to facilitate order spoofing (place an order then cancel it right before it gets executed) or wash trading (buy and sell the same currency to inflate demand) (Twomey and Mann, 2020) which might make them appear more liquid than they really are.

Difficulties evaluating the exact liquidity of cryptocurrencies are due to the large number of venues (more than 400), all with different trading rules. Market fragmentation is high, with an index of 9.71 as calculated using the FIDESSA methodology and data from coingecko.com). This is to compare to 4.6 for US equities.

Large arbitrage opportunities have been highlighted in Bitcoin prices across exchanges, which persist for several hours. These opportunities are much larger across countries (or regions) than within the same country. The daily amount of arbitrage profits has been estimated to be more than $5 million a day between December 2017 and February 2018 (source: Makarov and Schoar, 2018).

Other market infrastructures can be used, including dark pools (private exchanges, e.g., Bitfinex offers a dark pool service) and OTC markets. According to the TABB Group Report of October 2018, OTC markets process $12 billion worth of Bitcoin trades daily (three times more than the volume processed by exchanges).