

How to explain Ethereum current valuation?

- 1. Financial analysis of Ethereum 'stock price
- 2. Technical analysis of the impact of Ethereum's characteristics in its valuation

In this paper, we will try to understand Ethereum current price formation. The following graph shows that to explain Ethereum valuation we most look at Ethereum as a speculation tool as well as a productive asset.



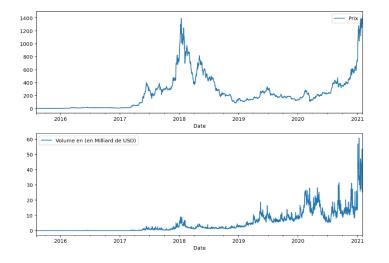
1. Financial analysis of Ethereum 'stock price

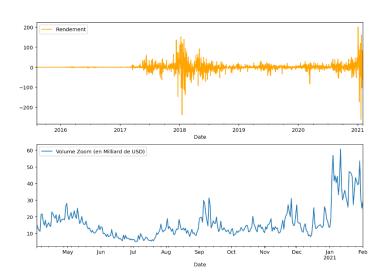
The cryptocurrencies are suddenly taking all the attention in financial markets. While certain shares, like Amazon and Tesla, have performed extremely well in the times of COVID-19, the crypto market has outperformed everything. Bitcoin surged above 44,000\$ on the 8th of February, while Ethereum has been following suit. We will take a look at the factors that are keeping the ETH/USD bullish, and the projections for the future.

The increasing uncertainty for investors, or anyone who has spare cash for that matter, has led to a higher demand for cryptocurrencies, which in turn has increased the use of the decentralized finance (DeFi) system. In fact, the DeFi transactions have absolutely surged during this time. In January this year, the total value locked (TVL) in DeFi exceeded \$ 20 billion for the first time. This means that there is more than \$20 billion worth of capital deployed in various DeFi protocols in the system.

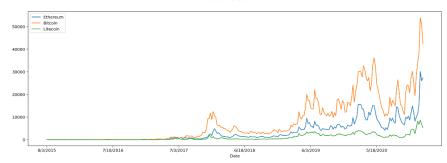
This is great for Ethereum since a large part of the DeFi system is built on the Ethereum network. Therefore, the faster DeFi transactions grow, the more Ethereum benefits. So, the fast growth of the Ethereum ecosystem in the last year is mainly a result of growing DeFi. In the middle of last year, the total value locked in DeFi transactions was heading for \$ 1 billion. Now the value has increased around 20 times, and this is expected to continue in the future, as the investor demand for cryptocurrencies increases, attracting both miners and speculators into the game.

a) Ethereum: Market Cap and Volume









ETH realized cap has grown by over \$25B since the start of the year and has soared to new all-time highs (Market Cap 177.986B on 03/02/2021). Realized capitalization was introduced in 2018 and is calculated by valuing each unit of supply individually at the price that it was last transacted on-chain. Therefore, it discounts the price of coins that were last moved during periods where the price was relatively low. ETH's large increase in realized cap potentially signifies that new capital is flowing in, as old coins are increasingly being moved as price climbs. The daily volume of ETH traded leads to the same conclusion: ETH is a rising stock on increasing volume and is typically viewed as strong and healthy. However, we are potentially at the end of the current trend as we are encountering sharp moves in price combined with a sharp increase in volume. This acts as a cushion in case of a crash in the crypto market. In that case, Ethereum would lose considerable value, but it would remain well above the pre-coronavirus trading levels.

The number of addresses holding at least 10K ETH has also increased significantly since the beginning of the year. There are now 1,241 addresses that hold at least 10K ETH, up from 1,178 on January 1st. These large addresses, each holding roughly at least \$14M, potentially signal that institutional investors are starting to buy ETH.

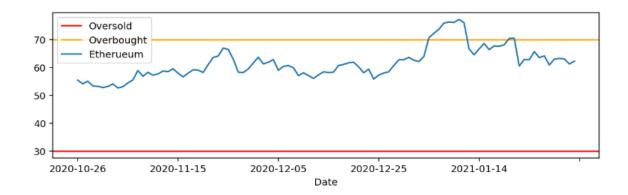


A final factor that can explain the increase of the Ethereum price is the launch of Ethereum futures trading on February 8. Ethereum accessing the derivatives market will rise it to a new dimension. Traders will be able to speculate on what ether will be worth at a given date in the future for the first time – a hallmark of any mature financial asset. Some analysts have said the recent bitcoin rally has been fueled by traditional investment firms, and the launch of Ethereum futures is often touted as opening the doors for the same price action. However, as every seasoned cryptocurrency user knows, both currencies are extremely volatile and are as liable to crash by extremes as to rise by them. Bitcoin's price fell 85% in the year after the last bull market in 2017, while ether was down by 95% at one stage from its previous high of US\$1,428.

The volume and market cap shows a great interest in the crypto market in general and Ethereum more specifically. Even institutional investors seem to be interested in ETH. However, questions are raised on the sustainability of the current price: since December and the launching of ETH2.0, the volatility of the stock has drastically increased. In the upcoming section, we will try to understand whether the crypto market is a speculative bubble or not.

b) RSI, resistance, and support.

Etheruem saw a solid 8% price hike today as the coin reached the 2018-ATH levels one more time. Will ETH be able to break the above?



Buyers remain in the market, as suggested by the rising RSI. The technical indicator that measures market strength has not yet reached overbought conditions, suggesting that buyers have the advantage. However, many traders are betting on an increasing RSI.

In fact, the cryptocurrency is now trading around the previous Jan-2018 ATH price, which was \$1440, according to Bitstamp. Ethereum broke the \$1,450 resistance and surged above \$1,500 against the US Dollar. ETH price traded to a new all-time high at \$1,750 and it is likely to continue higher. Ether is getting ready for a sharp upmove in the next few days, which can push it to \$1,800.



ETH finally overcomes the \$1440 previous ATH area and we can expect a huge move into the price discovery area. Resistance is found at \$1530, \$1600, and \$1650. From the bearish side, the first support lies at \$1425 (previous ATH). This is followed by \$1390, \$1350, and \$1300. Further support lies at \$1260 and \$1200. The upward trend remains clear, with the emergence of distinct high.

The RSI, as well as the Support and Resistance, lead to the same conclusion. ETH will continue to grow at least in a short period. Even if the actual trend is a bubble, the price collapse would probably not fall under 1200-1100\$.

1. Ethereum: Staking and stock price

a) Ethereum Network Status

In this part, we will discuss the consequences of staking on the stock price. The staking daily average income of Ethereum 2.0 validators in terms of ETH has been on a slight decline since last week. According to BeaconScan, average income has dropped over January from 0.008063 ETH/day to 0.007768 ETH/day. In dollar terms, however, income has been on the rise given bullish price trends pushing the value of ETH up 66.03% year-to-date. Average block times are currently 12.97 seconds with blocks per day currently at an all-time high. There is approximately 113.4 million ETH in circulation with inflation per annum currently at 4.32% which sits near an all-time low.

The Ethereum 2.0 network continues to grow at a steady pace and near-perfect user participation levels. On Saturday, Jan. 23, Eth 2.0 reached its highest daily average network participation rate at 99.46%. This indicates that, despite a growing number of participants, validators on Eth 2.0 are largely engaged in securing the network and earning rewards.

One other useful metric for evaluating ongoing network health and decentralization is the breakdown of user deposits on Eth 2.0. Roughly 50% of all ETH deposits are made by cryptocurrency exchanges and staking pools.

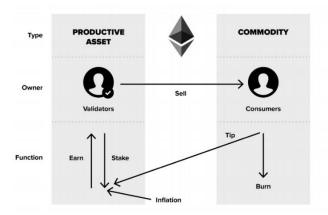
User participation on the Ethereum 2.0 network has also been increasing at a steady pace of close to 900 new validators each day. There are over 80,000 validators, each staking 32 ETH worth roughly \$50,000, at the time of writing. An additional 16,000 validators are in a holding queue for entry into the network over the next few weeks.

b) The relation between staking and ETH price: ETH as a productive asset

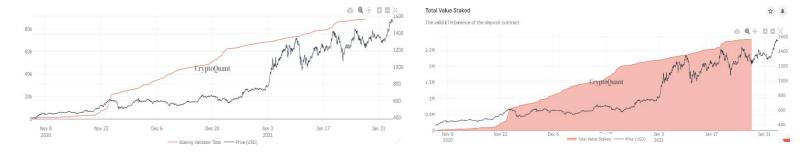
As we know, BTC has a fixed supply of 21 million coins and the rate at which these coins are released into the money supply decreases over time. ETH does not have a fixed supply but, like BTC, it has a declining inflation rate. There is a fixed issuance of new ETH annually. As the money supply grows, that fixed issuance becomes a smaller portion of the total money supply. As with BTC halving's, ETH over time has reduced the block reward for miners. The transition to Ethereum 2.0's staking mechanism is set to reduce the inflation rate of ETH to 0.5%-2.0%, putting it in the same company as BTC and gold in terms of supply inflation.

In a global low-rate environment, these returns are certainly attractive. And staking may be the killer app that allows ETH to become a "positive carry asset." In other words, it generates a positive return for holding it as opposed to, say, gold, which is negative carry, as it incurs storage costs. Long term, positive carry stimulates demand and creates an incentive to borrow cash to purchase and earn yield. Overall, positive-carry assets increase stability of price movements by creating long term holders and widening the investor base.

This is a key transformation in thinking about Ether's value. Ethereum 2.0 will transform Ether from a commodity to what we might describe as a productive commodity — holders will be able to generate interest by staking Ether. This asset structure is unlike anything else in the physical world. Commodities are consumed. Equities provide rights to cash flows. Under Ethereum 2.0, Ether can be consumed as a commodity or staked as a claim on cash flows, similar to equity.



Because of the continued growth of new users on Eth 2.0, a greater percentage of total ether supply is getting locked away and becoming unusable on the original Ethereum blockchain. Roughly 2.4% of all ETH in circulation is now immovable from Eth 2.0. Some Ethereum investors believe this percentage will grow to be as high as 30% in the future.



Despite negative connotations in the crypto community, fiat currencies (flexible supply) aren't inherently bad and the main advantage of an unfixed total supply is flexibility to adjust supply during different economic climates. Central banks have taken this flexibility to an extreme in recent years, and, while ETH's supply is not fixed, its projected long-term inflation may be a happy middle ground between fixed supply and unbridled money printing. In the case of Ethereum, a large percentage of total supply being removed from active circulation among decentralized applications and transactions between users impacts the velocity of ether as a digital currency. Velocity is the rate or frequency at which units of a currency are exchanged in an economy, or the case of Ethereum, in a blockchain system. If we think about ETH as money, ETH's velocity is negatively impacted as a result of Ethereum 2.0. Therefore, some people believe a larger amount of tokens staked in Proof-of-Stake (PoS) blockchains could push the price upwards by reducing the circulating supply, making the remaining tokens more valuable.



Even though blockchain and crypto analytics firm Messari has crunched the numbers and reports that there is little correlation between the two, it might be different for Ethereum since network participants will need to lock their 32 ETH for approximately one and a half years. Therefore, even though there might not be a general correlation between a price of a cryptocurrency and the supply staked, Ethereum could be positively impacted by the Total Value of ETH Locked (TVL) (mainly because it is effectively locked).

A market's liquidity has also an impact on how volatile the market's prices are. Lower liquidity usually results in a more volatile market and cause prices to change drastically; higher liquidity usually creates a less volatile market in which prices don't fluctuate as drastically. In the ETH market, reducing liquidity itself might not affect volatility. The crypto market itself is very volatile and thus reducing liquidity cannot be enough to decrease it.

c) The additional tool to destroy the supply of ETH: EIP 1559

Through Ethereum Improvement Proposal (EIP) 1559, the Ethereum blockchain would use Ethereum transaction fees to buy ETH on the open market and then destroy it, reducing ETH's overall supply. Tim Ogilvie, CEO of Staked, stated that "It's like a company that earns a profit and buys back shares," Burning billions of dollars in ETH could pump up the price of ETH. The net effect is that the remaining shares increase in value because the supply is smaller. The network would burn additional 1-4% of the supply each year. The issue remains the same: Does reducing supply, effectively increases the ETH price? (Cf. Messari)

Implementing EIP-1559 would also introduce a set fee for processing Ethereum transactions, replacing the current auction-style market that confronts users with ever-changing transaction fees. The hope is that introducing a set fee would stop miners from manipulating transaction fees that extract large amounts of money from users, making fees less volatile. That would be a godsend for users that this week had to pay, on average, fees of over \$20 per transaction. Instead of buyers and sellers setting fees, the network would automatically generate a "BASEFEE" price in line with network activity. If the network is busy, the BASEFEE would go up. If the network is quiet, the BASEFEE would go down. Users could still tip miners extra money to process transactions.

However the implementation of EIP-1599 is not ready yet. There's still one outstanding cyber security risk issue with EIP-1559 that needs to be addressed. And the proposal faces staunch resistance from Ethereum miners: Miners are naturally resistant as this will transfer a portion of fee revenue from miners to holders of ETH. If burning Ethereum could increase its price; that would be good for holders, but it would do nothing for miners.

Staking is the key to making ETH function as a value store. At its core, staking incentivizes holding ETH in a node that can then be used by the network to verify transactions. The greater the number of nodes, the faster the network can function and the more secure it becomes. Liquidity of the market could be controlled by the APR of staking, however its consequence on the ETH price is not proven.

As certain Ethereum experts have pointed out, ETH, unlike BTC, is much more than an asset for transfers of value, or even a store of value for that matter. ETH can be likened to a commodity asset needed for fueling a new decentralized web and financial system. ETH can also be viewed as a capital asset inextricably linked in value to the popularization and adoption of proof-of-stake blockchain protocols. With the advent of Ethereum 2.0 and its new characteristics such as EIP 1599, long-term holdings in ETH represent long-term bets on the decentralized web and/or finance, as well as on the viability, scalability, and security of proof-of-stake blockchains.

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