

Understanding Ether - The World's First Digital Commodity

A Brief Background:

EtherIndex registered its S-1 with the SEC in the summer of 2016, hoping to be the first ETF to track the price of the cryptocurrency ether. While the filing still remains in the registration process, we have been diligently working behind the scenes to educate regulators about ether and to help build the decentralized applications which give ether value. The questions posed by the CFTC are poignant, and while I cannot provide sufficient answers to all, my hope is to create an image in your minds through concrete examples. To knock a couple of the easier questions out of the way:

(1) In regards to the questions on the subject of “Cyber Security and Custody,” ethereum is built upon an extremely similar set of cryptographic primitives to bitcoin and for all intents and purposes can be secured and custodied in identical methods.

(2) In regards to the questions on “Governance,” the ethereum blockchain currently uses an extremely similar consensus mechanism to bitcoin, i.e. proof of work, and therefore has a nearly identical governance process to bitcoin. As it pertains to the current chain and its relation to the chain known as ethereum classic, the current chain has always been the “valid” one and shouldn’t be considered an outgrowth of ethereum classic -- while on a technical level they did once share a common history, the chain today has always retained both developer mindshare and users, the only two metrics that actually matter.

(3) In regards to the questions on “Markets, Oversight and Regulation,” there is essentially no difference between the underlying markets on bitcoin and the underlying markets on ether.

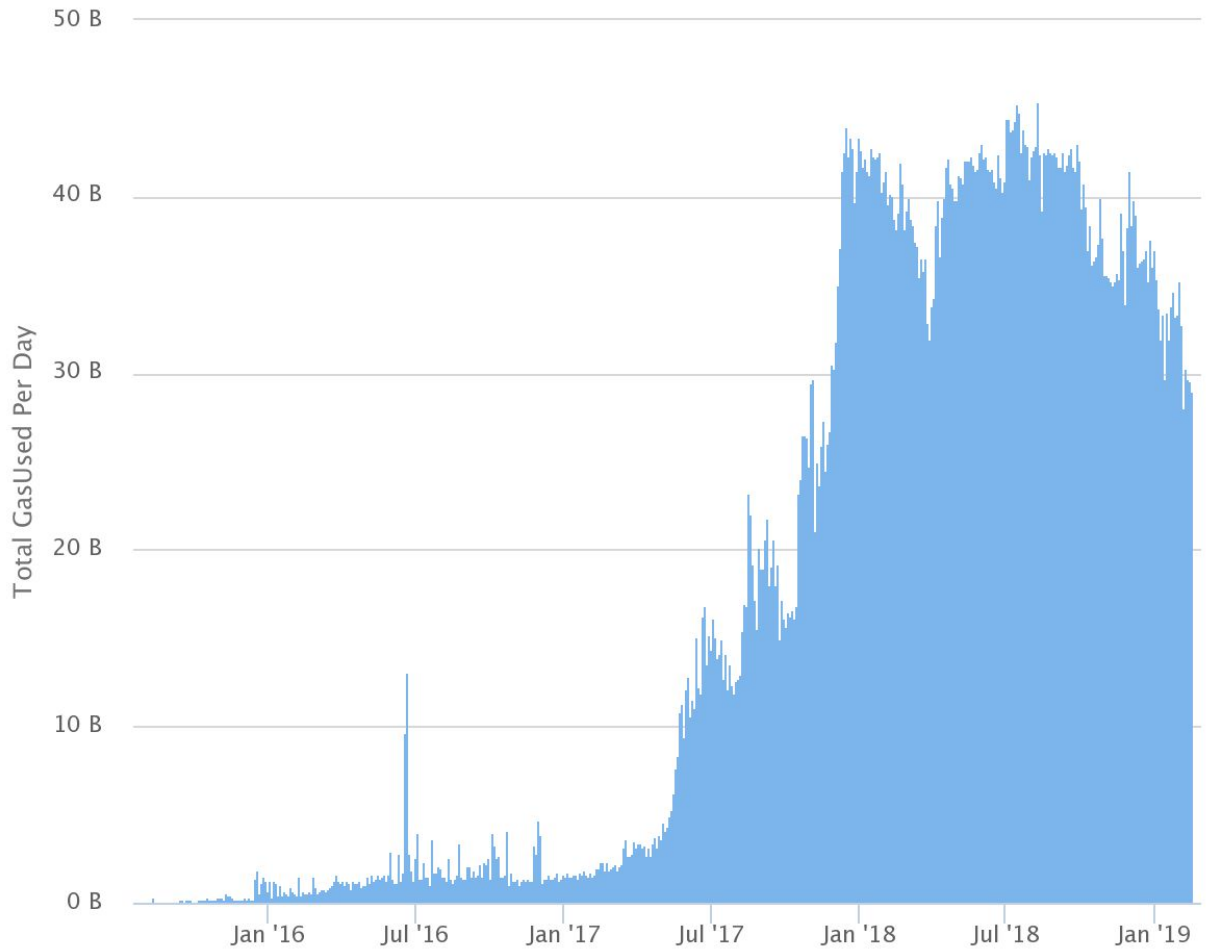
The Utility of Ether

Ether has two main sources of utility. One is its use as the fuel of the network, i.e. if you want to execute a transaction on the network, you must pay for that transaction in ether. This source of utility has a direct correlation with the usage of the network itself. Its growth can be seen in the following chart:

(Note: in ethereum, transaction fees are paid in a metric called “gas”, which is exclusively priced in ether)

Ethereum Total Daily GasUsed Chart

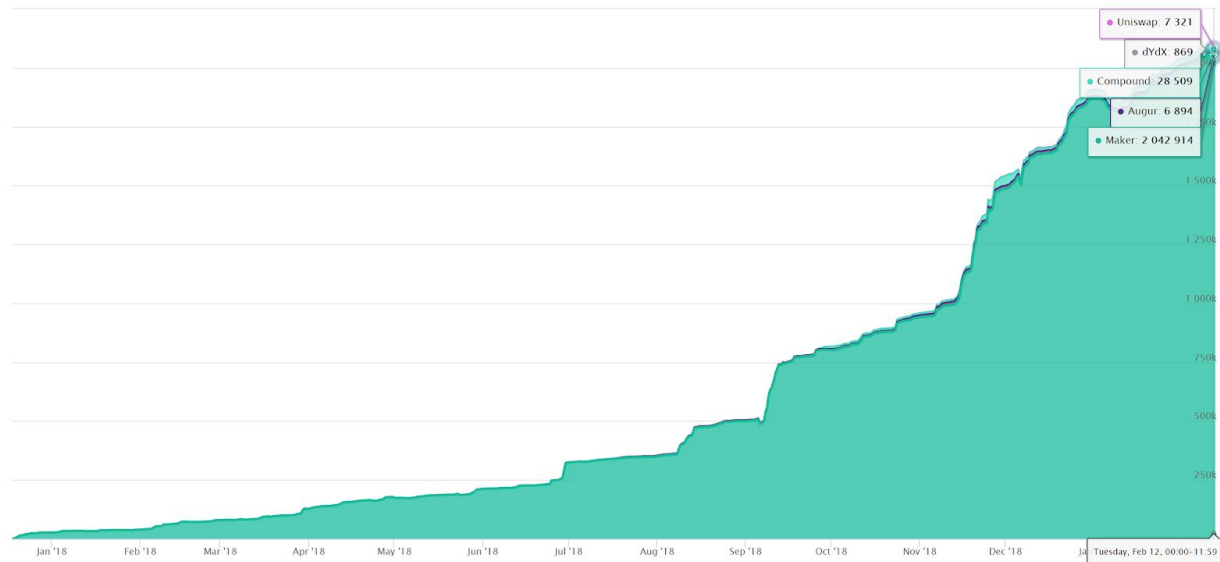
Source: Etherscan.io
Click and drag in the plot area to zoom in



(Chart courtesy of etherscan.io)

The other source of utility for ether is using ether as a value deposit in more complex systems. Thus far, the most successful applications on ethereum have been in a new business vertical call “Decentralized Finance,” DeFi for short. The following chart shows the success of De-Fi and its utilization of ether as a value deposit:

ETH Locked in DeFi



(Chart courtesy of Mike McDonald)

As can be seen in the above chart, using ether as a value deposit in other systems has currently locked away just about 2% of all ether in existence (with no signs of slowing down).

So What's Happening Here?

In the “ETH locked in DeFi” chart, you can see 5 applications listed -- Maker, Augur, Compound, dYdX, and Uniswap. Maker allows you to borrow dollar-pegged tokens against your ether in order to gain liquidity or leverage, while buyers of these dollar-pegged tokens gain a decentralized stable store of value and medium of exchange. Augur allows you to bet on the outcome of virtually any event and resolves bets with a unique decentralized resolution system. Compound allows users to lend their cryptocurrency to each other in a p2p fashion. dYdX facilitates the creation of synthetic assets, their most popular being a token which represents a short position on ether. Finally, Uniswap allows you to instantly trade tokens with an automated market maker in a completely trustless and decentralized fashion.

What do these applications have in common? Well for one, they are all seeking to disrupt legacy financial players by offering cheaper decentralized alternatives to existing products. But more importantly for the purpose of this commentary, they are providing tremendous demand for ether through their utilization. Each time a user interacts with any of the above applications, they must pay a small fee in ether to the network. This contributes to the “Daily Gas Used” chart. Second, all of the above actions require ether to collateralize their contracts. Maker requires borrowers to deposit a minimum of 150% of their loan in ether, Augur takes bets only in ether (for now), Compound also requires over-collateralization for its p2p loans, dYdX requires ether collateralization for its “short tokens”, and Uniswap forces its liquidity providers to always denominate their trades in ether. In summary, each application requires a decentralized store of value that is native to the network on which it operates.

In Conclusion

To retain brevity in this commentary, I was only able to scratch the surface of the innovation brewing in the ethereum ecosystem. The point I wish to highlight is that decentralized applications have arrived and the demand to use them is growing every day. These decentralized applications must use ether for security, and often use it in a far more implicit way. Ethereum is the only blockchain that has seen this kind of non-speculative usage, and that is why ether should be considered the world's first digital commodity.

Thank you,

Gregory Di Prisco
CEO, EtherIndex LLC