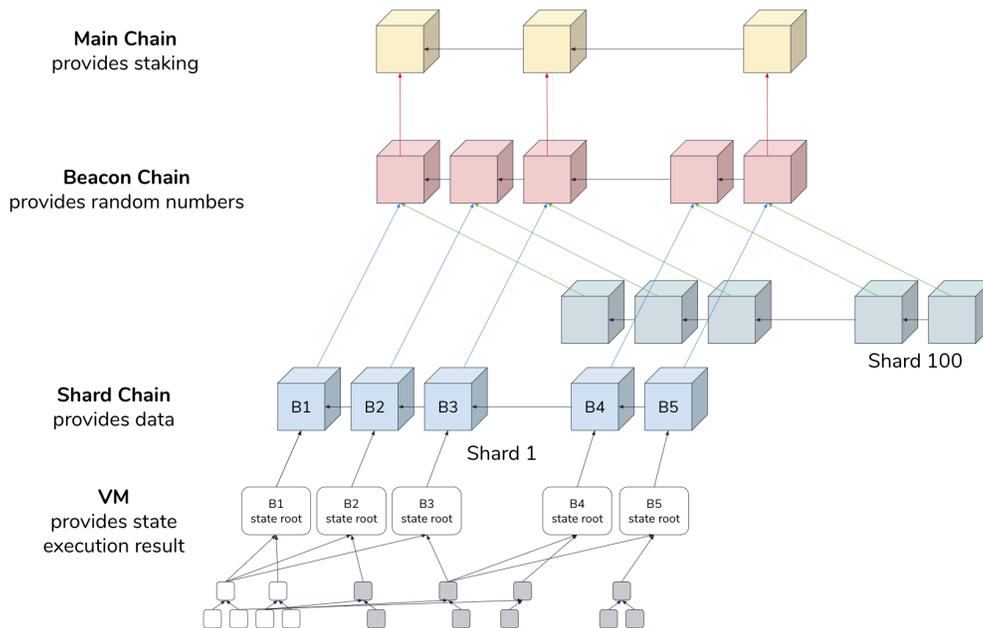# Ethereum 2.0 – Pros & Cons

Below you'll find an analysis of the ETH2.0 upgrade and how it can reflect on Ether's price.

Ethereum was initially developed as a Proof-of-Work (PoW) blockchain, which requires miners like Bitcoin. In mid-2015, the concept of the difficulty bomb was introduced to force the network to migrate to the more scalable Proof-of-Stake (PoS) consensus algorithm. The latter would increase the time it would take to mine a block, which would eventually bring the entire network to a halt unless a PoS upgrade occurs.

Unfortunately, this migration took much longer than anticipated and block times started increasing. Hence there were three hard forks (Byzantium, Constantinople and Muir Glacier) on the blockchain to delay this effect and give more time to developers. The transitional process remains 33% incomplete. The idea is to complete the process in the three following phases:

Phase 0: Beacon Chain

This would mark the birth of the ETH2.0 chain, thus far it is expected to occur in Q1 2020. This is where the staking rules will be set and validating nodes will begin working. In that new chain a new ETH coin will be issued, to which there will likely be a specific process created to convert your coins 1:1 from the ETH1.0 PoW chain to the ETH2.0 PoS chain. The beacon chain and the current Ethereum blockchain will run in parallel until the transition is completed to avoid disruption of services.

Phase 1: Shards

During this phase will emerge the new shards that will enable the Ethereum blockchain to scale on a very large level. Sharding is a way to create groups of nodes responsible for the verification of a certain number of blocks, this way the network's throughput can be dramatically increase as every block does not have to verify every single transaction taking place on the network.

Phase 2: Execution

This phase remains in R&D and developers have not yet come to agreement as to how the final phase shall happen. However, it'll be the final phase and hence the moment when ETH2.0 is fully deployed and working; all DApps would have moved over as well and adapted to the new environment.

The fact that this transition is going to take up so much time, means Ethereum just opened up a very large takeover opportunity window for competitors. If this transition os executed smoothly with minimal disruptions to DApps and the overall network, and most importantly at a faster pace, Ethereum is likely to keep its place especially after having become a big name in the industry. Where worry should lie is not whether competitors would take over, but whether Ethereum falls because of this transition.

Currently, the network is maintained by miners, if disruptions occurs and less transactions come to the network, this might force miners to shutdown their business and consequently shutdown the Ethereum blockchain. If, however, the transition is smooth, once validating nodes are in place and the staking process begins, it is likely that many start buying ETH (decreasing the supply available) and locking their coins up in order to stake them.

Ultimately, for investors and traders, this really can go either way. The closer we get to the event, the more details surface about the transition, the more of a feel we'll get towards where this will ultimately go. For those of you who believe Ethereum will remain king of smart contracts platforms, it would be wise, in theory, to hedge your bets by diversifying into another promising SC platform for the time being.

Diagram by *Hsiao-Wei Wang*