THE ETHEREUM MERGE: HOW THE SHIFT TO PROOF-OF-STAKE COULD IMPACT INVESTORS

Benjamin Dean - Director of Digital Assets at WisdomTree in Europe 09/27/2022

The Ethereum network experienced an update in mid-September 2022. The update, called "the merge," involved transitioning the network's consensus mechanism to proof-of-stake.

The Ethereum network has been running two blockchains since April 2022. The two blockchains are the original blockchain, using a proof-of-work consensus mechanism, and the "beacon" chain, which implements proof-of-stake. This has allowed people to stake their ether for some time now. However, they haven't been able to unstake their ether yet.

This will eventually change, the first step is the two chains coming together to form one—hence "merge"—on the path to the next step, termed the "Shanghai hard fork." This update will allow staked ether to be unstaked.

If you want to learn more about consensus mechanisms, you can learn more here.

What does the shift to proof-of-stake mean for Ethereum?

A new business model with proof-of-stake

First, new ether is now distributed to those who stake their ether holdings to validator nodes on the network. On average, these nodes already generate a yield of 4% per annum, which is a different business model from miners¹. This economic incentive structure differs from the previous network, where miners received new ether.

There is already an industry around managing staking to maximize performance and revenue from validator nodes. The main questions going forward will be:

- 1. Who holds the (most) ether?
- 2. Who runs the nodes?
- 3. Who can run the nodes most efficiently?

ESG considerations of Ethereum

Next, a narrative shift has emerged around <u>ESG</u>. Proof-of-work requires energy to power the computers that solve difficult math problems. Proof-of-stake requires less energy, which some claim makes it more "ESG-friendly." This could lead institutional investors to view the digital asset space differently.

Key risk considerations of the Ethereum merge

In terms of risks going forward, some of those who previously generated revenue from mining and trading using Ethereum have "hard forked" the network in an attempt to preserve their revenue stream, which is now cut off under the new network². This revenue stream can be sizable and historically varied by approximately half a billion U.S. dollars each month during 2022^3 . As a reminder, splits like this have happened in the past. We can look back to Ethereum Classic [ETC] and <u>Bitcoin</u> Cash [BCH] as general references. While potentially disruptive and somewhat confusing for non-technical



people, the forked chains have not historically performed particularly well.

To learn from the past, we also need to look to the future

<u>Open-source</u> software is constantly evolving as developers make changes to it over time. This means that the codebase is different now than it was a few years ago, and it will continue to change in the future. Investors need to think through the implications of these changes—both the good and the bad—to take advantage of opportunities while managing any risks.

Reach out to our team at <u>crypto@wisdomtree.com</u> if you're an advisor and curious about how this shift could change how you perceive digital cryptocurrencies and this new asset class, Ethereum, or client conversations.

Benjamin Dean is an employee of WisdomTree UK Limited, a European subsidiary of WisdomTree Asset Management Inc.'s parent company, WisdomTree Investments, Inc.

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¹ https://www.stakingrewards.com/

² https://twitter.com/ethereumpow

³ https://www.theblock.co/data/on-chain-metrics/ethereum/ethereum-miner-revenue-monthly

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ESG: An acronym for environmental, social and governance, ESG standards quantify the degree to which a company is socially responsible. .

<u>Bitcoin (the currency)</u>: A digital currency (also called a cryptocurrency) created in 2009, which is operated by a decentralized authority as opposed to a traditional central bank or monetary authority.

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