



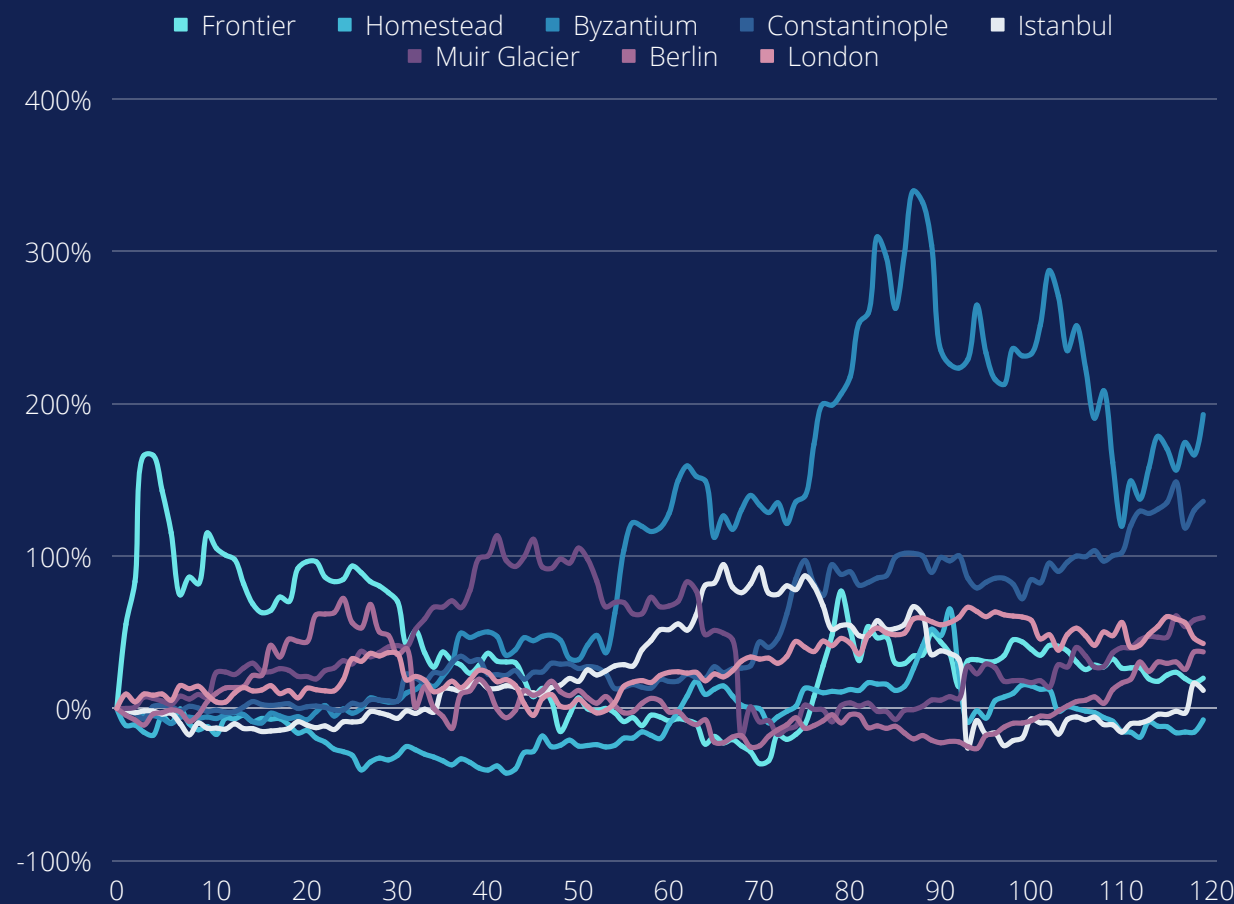
# Price Impact of Ethereum Network Upgrades

Ethereum (ETH) was first devised by Vitalik Buterin in 2013, with additional co-founders joining the project throughout 2014. The blockchain was crowdfunded via an initial coin offering (ICO) in July 2014, selling around 60 million ETH in exchange for 31,000 Bitcoin, or about \$18 million at that time. The remaining 20% of the initial ETH token circulating supply was allocated to the Ethereum Foundation and early investors.

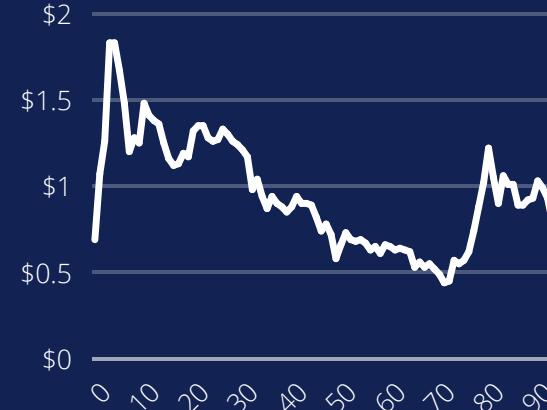
In July 2015, the Frontier upgrade was released and the genesis block was created. Ethereum has continued to deploy planned protocol upgrades through hard forks, or non-backwards compatible protocol changes. In the past, these upgrades have also garnered a bullish price reaction, which has peaked around 80-90 days, on average. The next protocol upgrade will be one of the most significant in Ethereum's history, as the change will continue to transition Ethereum's consensus mechanism from Proof-of-Work to Proof-of-Stake. Although the transition has yet to be fully implemented, over 11 million Ethereum tokens, nearly 10% of the total circulating supply, are currently collecting staking rewards. According to Ethereum core developer Tim Beiko, the planned upgrade will likely occur a few months after June 2022.

Ethereum Upgrade	Release Date	Local Price Top	▲ (days)	Price Trend	Rate of Change
Frontier	7/30/2015	10/31/2015	93		-0.85%
Homestead	3/15/2016	6/15/2016	92		0.54%
Byzantium	10/16/2017	1/12/2018	88		2.65%
Constantinople	2/28/2019	6/28/2019	120		1.08%
Istanbul	12/8/2019	2/13/2020	67		0.87%
Muir Glacier	1/2/2020	2/13/2020	42		2.18%
Berlin	4/15/2021	5/10/2021	25		2.41%
London	8/5/2021	11/7/2021	94		0.44%
		Average	78		

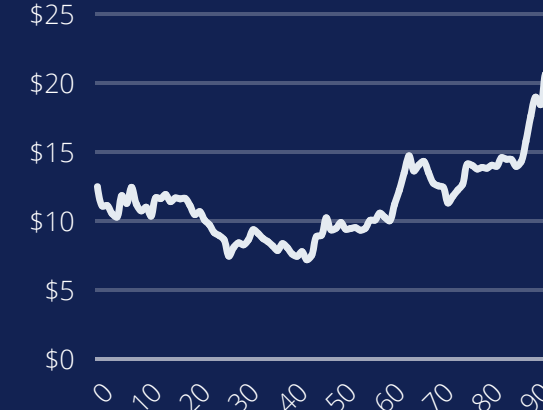
## Cumulative Returns Post Upgrade



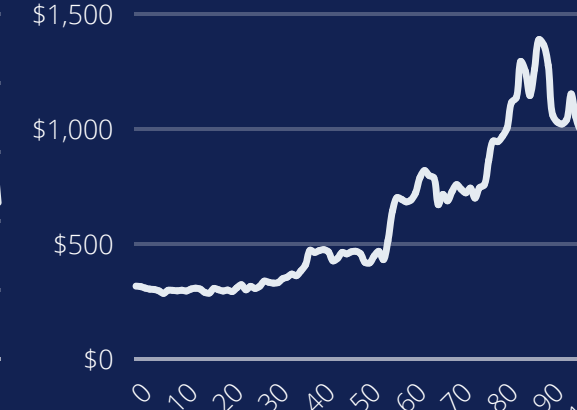
### Frontier



### Homestead



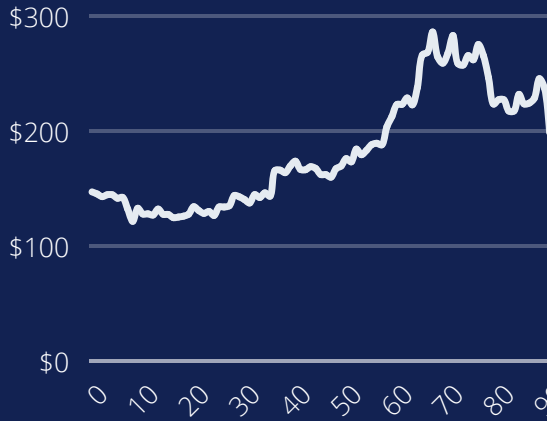
### Byzantium



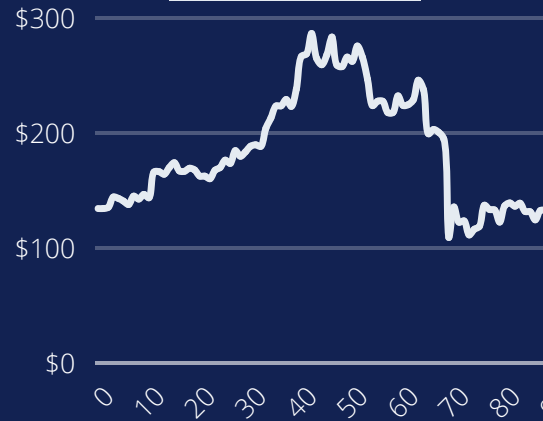
### Constantinople



### Istanbul



### Muir Glacier



### Berlin



### London



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Data Source: Coingecko.com, TradingView.com - Poloniex: ETH/USD, Glassnodes