halvening also marked the advent of the ASIC (application-specific integrated circuits) mining area, leading to immense efficiency gains over older methods such as CPU, GPU or FPGA (field-programmable gate arrays) mining – a fact which left its footprint in the hashrate chart.

A block reward halving drastically changes how much the protocol pays out to miners irrespective of network usage (i.e. transaction fees) – next time from 1'800 BTC per day to 900 BTC per day. Currently, transaction fees only account for about 2 % of the total miner revenue.[4] Since the total miner revenue is tightly correlated with the hashrate and hence the overall network security, there are three possible outcomes. The first is that the Bitcoin price will rally as it did after the first two halvenings – in this case, miners will remain profitable and hashrate will continue to go up. The second scenario in which on-chain transaction volumes and total transaction fees would strongly increase leads to the same outcome. If neither of the two happen, however, then the hashrate could be expected to decrease due to miners with the highest production costs per BTC becoming unprofitable.

The second scenario – an increase of on-chain transaction volume – is also closely related to the heated block size debate that ultimately led to the hard forks that created Bitcoin Cash (forked from Bitcoin) and Bitcoin SV (forked from Bitcoin Cash). Both competitor chains aim to solve Bitcoin's current scalability limitations by increasing the block size and hence allowing to accommodate more transactions per block. Bitcoin currently has a block size limit of 1 MB, although the use of SegWit – which solves Bitcoin's transaction malleability and helps with scaling – effectively allows the inclusion of up to 4 MB worth of transactions. Bitcoin Cash's block size limit is 32 MB; Bitcoin SV lifted the limit to 2 GB in July 2019 with the Quasar protocol upgrade. This highlights the different approaches to scaling between the chains: While Bitcoin plans to achieve scaling off-chain through second layer solutions such as the Lightning Network, Bitcoin Cash and Bitcoin SV proponents argue that scaling should mainly take place directly on-chain.
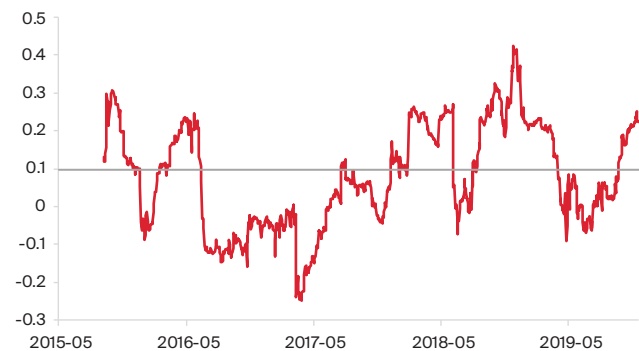
Another interesting fact to note is that both Bitcoin Cash and Bitcoin SV are projected to undergo their block reward halvings in April 2020 – one month earlier than Bitcoin. Since all three chains also share the same hashing algorithm, much of the hashrate of BCH and BSV will most likely switch over to Bitcoin for a month (until its halvening has also happened).

Bitcoin's Role as an Investment and a Store of Value

Debt is increasing globally – recently, it was estimated that global debt would rise to $255 trillion by the end of 2019.[5] Interest rates are already negative in Europe and Switzerland, and the Federal Reserve lowered their target rate to 1.5 % - 1.75 % at the end of October 2019.[6] Bitcoin was born out of the financial crisis that started in 2007 and offers a hard money system due to its defined issuance schedule. This is especially relevant today in countries with currencies that have issues of trust due to continuous inflation by the government, such as Argentina or Venezuela – where localbitcoins (a peer-to-peer trading platform) volume has reached record highs.[7] In these economies with capital market restrictions, Bitcoin serves as a store of value, similar to gold – with the additional characteristic that it is considerably harder to seize by oppressive governments.

But also in countries where the people still feel safe holding the local currency, Bitcoin makes sense as part of a well-diversified portfolio due to one feature: its low correlation to other markets such as equities or gold.

Bitcoin / S&P 500 90-Day Rolling Correlation

[4] https://www.bitcoinsuisse.com/research/decrypt/transaction-fees-markets-for-block-space/
[5] https://www.reuters.com/article/us-global-markets-debt/global-debt-to-top-record-255-trillion-by-years-end-idUSKBN1XP1FB
[6] https://www.federalreserve.gov/monetarypolicy/files/monetary20191030a1.pdf
[7] https://coin.dance/volume/localbitcoins