Discussion of Blockchain Analysis of the BitCoin Market

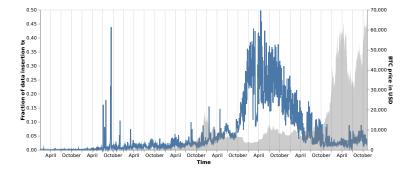
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- There is a vast amount of (new) data on chain that sheds light on economic behavior
- Even though it is "public" it is difficult to assemble and parse.
- This paper provides a careful blockchain analysis and presents stylized facts about Bitcoin wallets, transfers, and especially miners.
- Pushes our understanding of this important industry forward.

Comment #1 Economic Value

- If bitcoin is a store of value + medium of exchange.
 - Then, the economic value of a transfer of 1 B is 1 B
- If bitcoin is method to transmit information
 - Then, the value of the transfer of $1 \begin{subarray}{c} \neq 1 \begin{subarray}{c} 1 \end{subarray}$
- Op Return incorporated into bitcoin core in March 2014
 which identifies data insertion
- These transactions move very little bitcoin around (conflate with peeling?)
- Data may or may not be illegal
- Providing a service distinct from value transfer (used for the omni-layer and Tether)

May be economically important Bitcoin price grey, blue is data insertion



Comment #2 Understanding Contracts

- Very interesting and detailed information on miners.
- Careful tracking of individual miners' payments.
- Clean identification of cash outs etc.
- Very unusual to have specific and rich miner information

Visual Analytics of Bitcoin Mining Pool Evolution by Natkamon Tovanich, Nicolas Soulié, Petra Isenberg

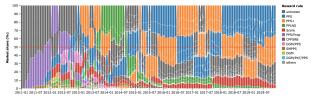


Fig. 2. Ribbon chart of market share distribution according to reward rules. Each bar represents the market share of a mining pool while its color stands for a specific reward. The stacked bars are sorted monthly by the total market share of each reward rule and by the market share of the mining pools within each group. The legend on the right is sorted by the market share over the neitre period. The red horizontal line indicates a 50% mining power threshold.

- Some discussion of incentive contracts in CS literature
- Interesting laboratory to analyze incentives and why pay-per-share solves multi-pooling, pool hopping and other incentive problems.

Comment #3 Bitcoin Eco-system is evolving

- There are now multiple bridges from ₿ blockchain to other chains.
 - At least 1.5bn in H-btc
 - At least 10.11bn in Wbtc
- Useful to identify bridges as a separate type of intermediary
- In as much as bridges increase the use value of Btc knowing how many there are and how many coins are held in escrow is interesting.
- Transactions on another chain can't be observed on the bitcoin chain.

Conclusion

- Careful examination of flows on the Btc blockchain.
- Although all Blockchain data are public, very difficult to parse
- Careful tracking of individual miners.
- Data can be used to answer many interesting economic questions.