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# Huobi Blockchain Big Data Weekly Insights

## Vol. 8

2018/7/25-2018/8/1

### Abstract

All data in this report was captured and analyzed by Huobi Research; please cite the source "Huobi Blockchain Big Data" for reference.

*New Data Included: Watchers, Commits and Releases on GitHub*

#### • On-Blockchain Data:

This week, the number of active Bitcoin addresses dropped from 3.52 to 3.51 million, of which the number of new addresses increased from 1.37 to 1.41 million, and the number of reactivated addresses decreased from 1.10 to 1.48 million. There were 4 extra-large transactions (each worth 10,000 BTC) and 398 large transactions on BTC network this week. The total volume of transactions worth between 10 and 100 BTC accounted for 32.1% of all BTC transactions (33.9% last week). There were two top 30 Bitcoin addresses with significant change in balance, including 1 net inflow and 1 net outflow.

The number of active address in ETH increased 12.1% from 1.565 to 1.754 million. The overall transaction fee decreased from 11,000 to 9,000 ETH, and average transaction fee decreased 19% to 0.0017 ETH this week, the lowest in two months. Concentration of wealth on ETH network increased slightly. There were two extra-large transaction on ETH network this week, which is a transaction between two Bitfinex cold wallets. Among the top trending ERC20 Tokens, the wealth concentration of VEN and ICON increased slightly this week.

#### • Social Media Data:

BTC, ETH, and EOS continued to be the top trending cryptocurrencies in China, while BTC, ETH, and Ripple continued to be the top trending cryptocurrencies overseas. In the Events category, "Risk", "Smart Contracts" and "Public Chain" were the hottest words in China, while "Bot", "Community" and "Mining" were the hottest overseas; in the Exchange and KOL category, "Huobi", "OKEX" and "Fcoin" were the hottest in China, while "Coinbase", "Binance" and "Vitalik" were the hottest overseas.

BTC, ETH and EOS are the most active projects on GitHub with the most accumulated stars, watchers and forks; ETH, BTC, and Cardano are the projects with the most commits; ETH, Ripple, and Litecoin are the project with the most releases.

#### • Market Trading Data:

The price of top 10 Cryptocurrencies experienced decrease to various degrees, with Cardano receiving the biggest decrease of 16.4% and IOTA receiving the smallest of 3.5% in their respective prices. In terms of price volatility, Ripple had the lowest volatility rate of 0.0022 s.d. while Stellar had the largest volatility rate of 0.0062 s.d. Turnover of Cryptocurrencies increased significantly compared to last week, with EOS having the largest turnover of 78%. ETH/Ripple, Cardano/EOS, Cardano/ETH had the highest correlation in price this week, while BCH/IOTA and BTC/IOTA had the lowest correlation in price this week.

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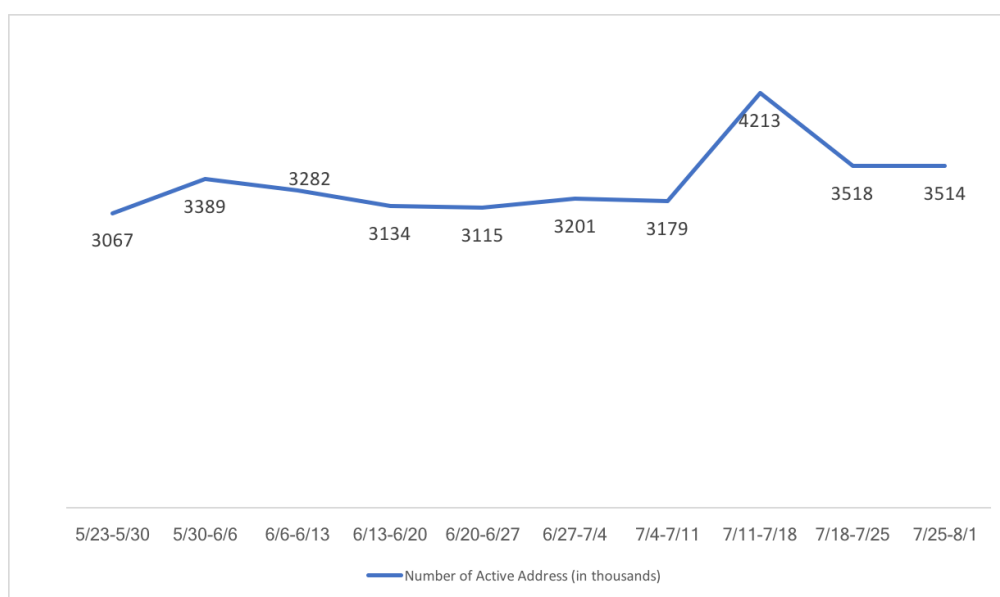
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## 1. On-Blockchain Data

### 1.1 Active Bitcoin Addresses

**This week, the number of active Bitcoin addresses was nearly unchanged compared to last week, dropping from 3.52 million to 3.51 million while it's still at the peak level.**

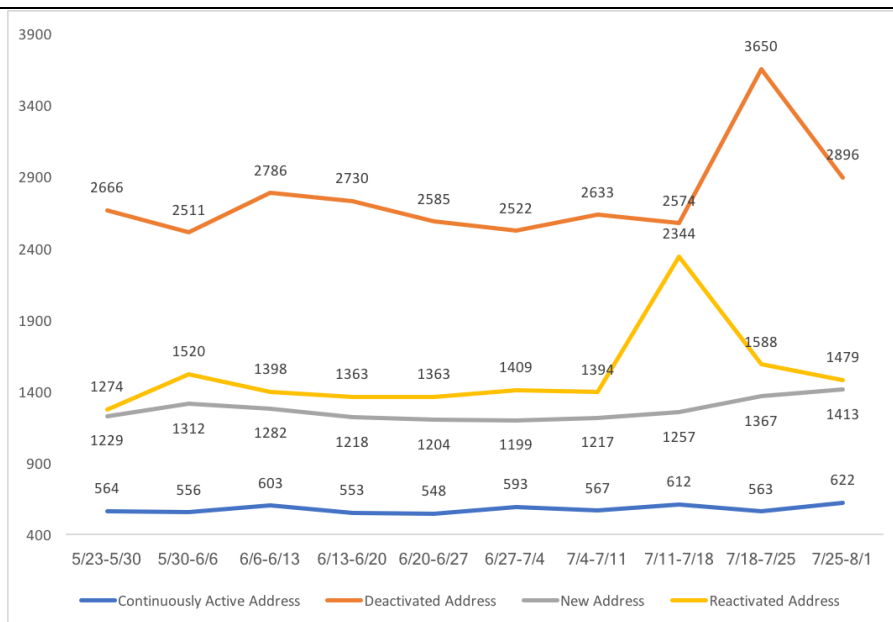
Figure 1: Active Bitcoin Addresses (in thousands)



Data Source: Blockchain Node File, Huobi Research

**This week, the number of new addresses has continued to increase for the fourth consecutive week. It's the highest in the past two months. The number of continuously active addresses increased and that of the reactivated addresses decreased. The number of new addresses increased from 1.37 million to 1.41 million. The continuously active addresses increased from 56,000 to 62,000, accounting for 14.4% of the total active addresses (17.7% last week). The number of reactivated addresses was reduced 0.11million from 1.59 to 1.48 million, dropping 6.9%.**

Figure 2: Categorization of Active Bitcoin Address (in thousands)

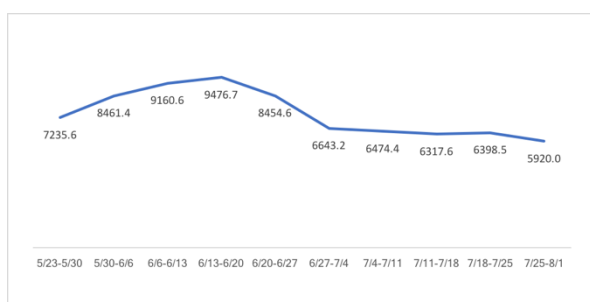


Data Source: Blockchain Node File, Huobi Research

## 1.2 Transactions on Bitcoin Network

The overall transaction volume on the Bitcoin network was **5.92 million BTC**, decreased by **7.5%** from **6.398 million BTC** last week. There were overall 1.542 million transactions, up slightly from 1.53 million last week. The average amount of BTC per transaction **decreased by 8.1%** from 4.18 to 3.84 BTC in a week.

Figure 3.1: Bitcoin Trading Volume (thousand BTC)



Data Source: Blockchain Node File, Huobi Research

Figure 3.2: Number of Transactions on BTC (in thousands)



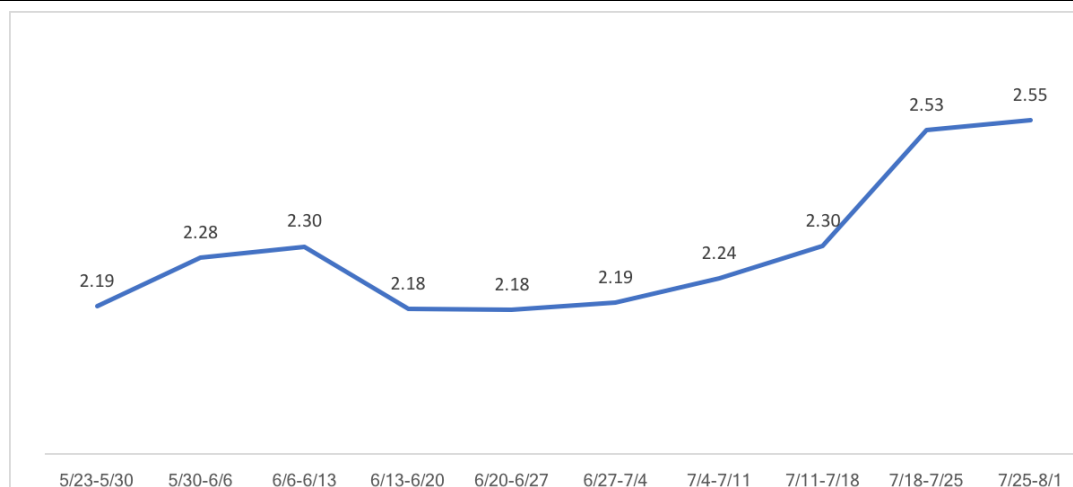
Data Source: Blockchain Node File, Huobi Research

## 1.3 Bitcoin TPS

The average bitcoin transaction volume per second (TPS) this week

increased to 2.55, rising for six consecutive weeks.

Figure 4: Bitcoin TPS

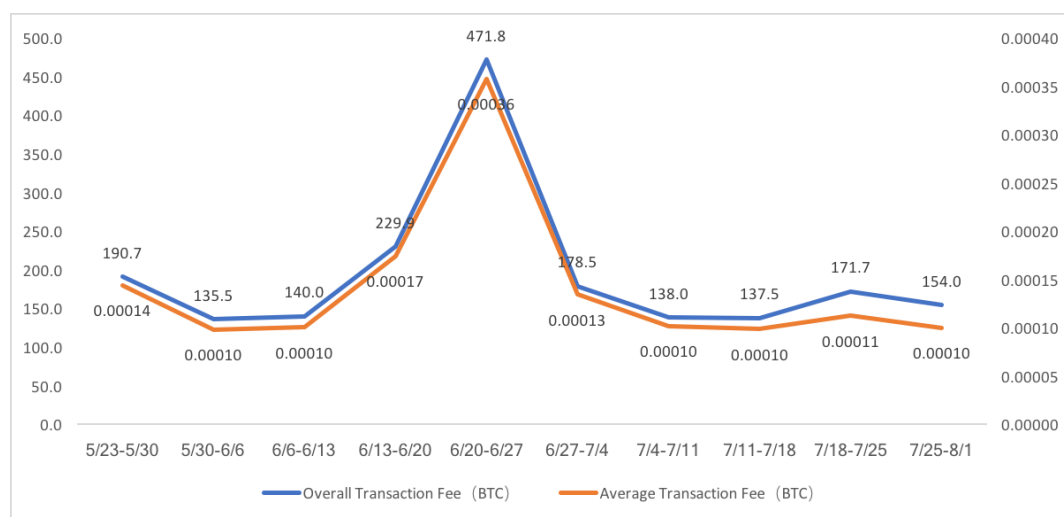


Data Source: Blockchain Node File, Huobi Research

## 1.4 Bitcoin Transaction Fee

This week, the overall Bitcoin transaction fee was decreased from 171.7 to 154 BTC. The average transaction fee per transaction was 0.0001 BTC, decreased slightly from last week.

Figure 5: Bitcoin Transaction Fee (BTC)

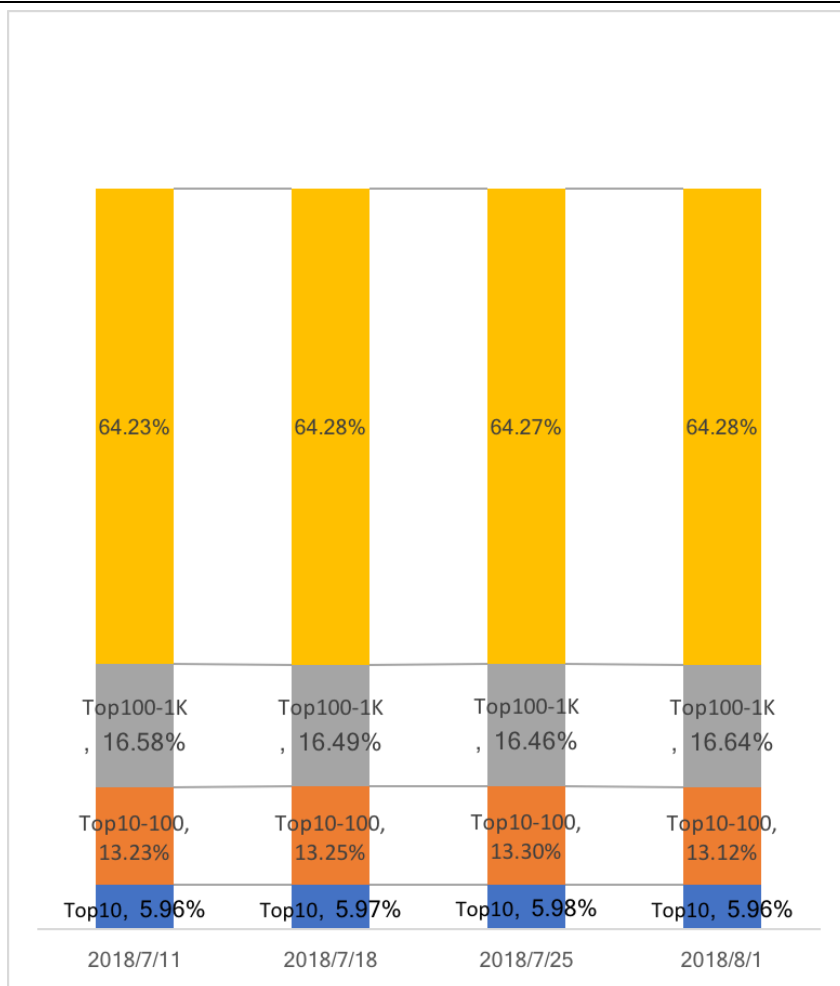


Data Source: Blockchain Node File, Huobi Research

## 1.5 Concentration of Wealth on Bitcoin Network

**Concentration of Wealth on Bitcoin Network was nearly unchanged compared to last week.** The holding ratios of top 10 addresses decreased 0.02%. Top 10-100 addresses held 13.12% of all Bitcoins, decreased by 0.18% from 13.3% last week. Top 100-1000 addresses held 16.64% of all Bitcoins, up 0.18% from 16.46% last week. The holding ratios of other remaining addresses held 64.28%, up 0.01% from 64.27% last week.

Figure 6: Concentration of Wealth on BTC Network



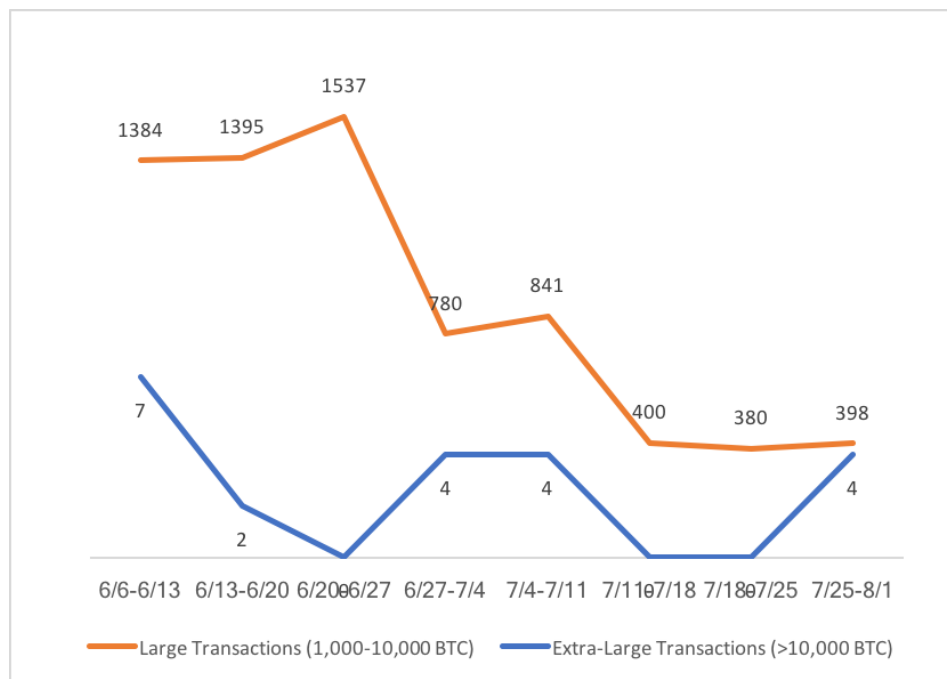
Data Source: Blockchain Node File, Huobi Research

## 1.6 BTC Large Transactions Monitor

Huobi Research defines “extra-large transactions” as individual transactions worth over 10,000 BTC, and “large transactions” as those worth between 1,000-10,000 BTC. This week, **there were four extra-large transactions** on Bitcoin network. Each worth 10000 BTC, and worth 40000 BTC in total. **The number**

of large transactions increased from 380 last week to 398.

Figure 7: Large and Extra-large Transactions on BTC Network



Data Source: Blockchain Node File, Huobi Research

## 1.7 Transaction Volume Distribution of Bitcoin

This week, the volume of all ranges of Bitcoin's transactions volume decreased except that of the “extra-large transactions”. The majority of the transactions this week worth between 10-100 BTC, accounted for 32.1% (33.9% last week, decreased by 1.8%) of all BTC transactions this week.

Figure 8.1: Transaction Breakdown by Volume (in thousands)

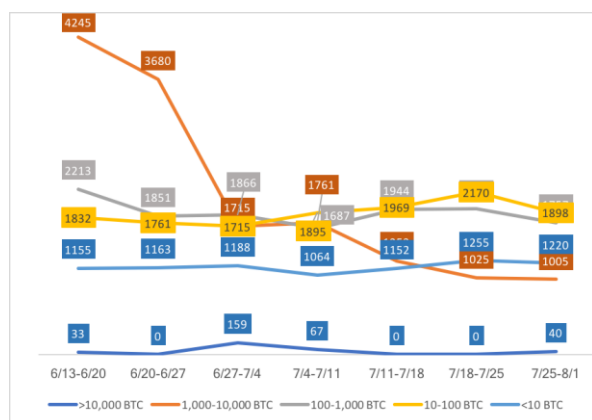
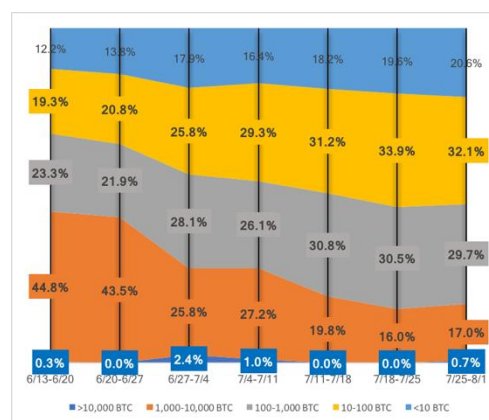


Figure 8.2: Weekly BTC Transaction Distribution



Data Source: Blockchain Node File, Huobi Research

Data Source: Blockchain Node File, Huobi Research

## 1.8 Change in Balance of Top 30 Bitcoin Address

This week, among the Top 30 Bitcoin addresses, 2 addresses had significant changes in their balance, including 1 net inflows and 1 net out flows. Bitfinex's cold wallet address had a net outflow of 2,572 BTC, followed by a net inflow of 3,003 BTC to the address "38UmuUqPCrFmQo4kxkomQwZ4VbY2nZMJ67", which had net inflows above 2000 BTC for two consecutive weeks.

Figure 9: Change in Balance of Top 30 Bitcoin Address

Address	Balance as of 2018/8/1	Balance as of 2018/7/25	Change in Balance	Note
3D2oetdNuZUgQHPJmcMDDHYoqkyNVsFk9r	183147	185719	-2572	Bitfinex Cold Wallet
16ftSEQ4ctQFDtVZIUBusQUJRrGhM3JYwe	158779	158779	0	
16rCmCmbuWDhPjWTrpQGaU3EPdZF7MTdUk	107203	107203	0	
3Nwenay9Z8Lc9JBiywExpnEFlp6Afp8v	101848	101848	0	
3Cbq7aT1tY8kMxWlbitaG7yT6bPbKChq64	98042	98042	0	
183hmJGRuTEi2YDCWysiozY8rZtFwVgahM	85947	85947	0	
1FeexV6bAHb8ybZjqQMjJrcCrHGW9sb6uF	79957	79957	0	
18mfoQgGo1HqvVQaAN4QnxjYE7Sez9eca	73600	73600	0	
1HQ3Go3ggs8pFnXuHVHRytPCq5fGG8Hbhx	69370	69370	0	
1PnMfRF2enSZnR6JsexxBHuQnxG8Vo5FVK	66452	66452	0	
1AhTjUMztCihitYA4K6E3QEepobjWlWkhkR	66379	66379	0	
1DiHDQMPPFu4p84rLn6Majj2LCZZRQUaa	66236	66236	0	
1EBHA1ckUWzNKN7BMfDwGTx6GKEbADUozX	66234	66234	0	
1LdRcdxfbSnmCYYNdeYpUnztiYzVfBEQeC	53880	53880	0	
1JCe8z4jVNXSjohjM4i9Hh813dLCNx2Sy	53000	53000	0	
1AC4fMwgY8j9onSbXEWeH6Zan8QGMsDmtA	51830	51830	0	
12YygZpCEC8VED2oSMQdWCq5x8nHo9ts1Z	48500	48500	0	
38UmuUqPCrFmQo4kxkomQwZ4VbY2nZMJ67	44422	41419	3003	
323ENWgPNZdzsm2d6CzEaPTFrvavn1giv5	40055	40055	0	
37x6JnDNhbsBw95bvEreB7WHWA74gGR17y	40014	40014	0	
bc1q9sh6544xIs87x7skjzyfhky4wq7z76vn7qzq9	40000	40000	0	
33VMRgxXZWgZGmGnGRZ9AEW8bZs8scMiY1	39239	39239	0	
3Ap6mihHLmVtH41YHH94Ut4jBfmaRpzgQ	38875	38875	0	
3CqBquEFMY548fNBz8u2MBw3HKprS3Xft	38794	38794	0	
17hf5H8D6Yc4B7zHEg3orAtKn7Jhme7Adx	36000	36000	0	
36TEhDpuSjnVbGBC3kqWd8FicVx95pir4	35612	35612	0	
1MAhRt279uYmVC1dUxKR6dWwEULBJT34Nh	34010	34010	0	
32ixB1aXiwwpHGHO27SMRSULajCdc7jg9Q	33500	33500	0	
336xGpGweg1wtY4kRTuA4w6d7yDkBU9czU	33123	33083	40	
18tLso5ja4XqYtQzo9S6mqhfCsgcufdh	32957	32957	0	

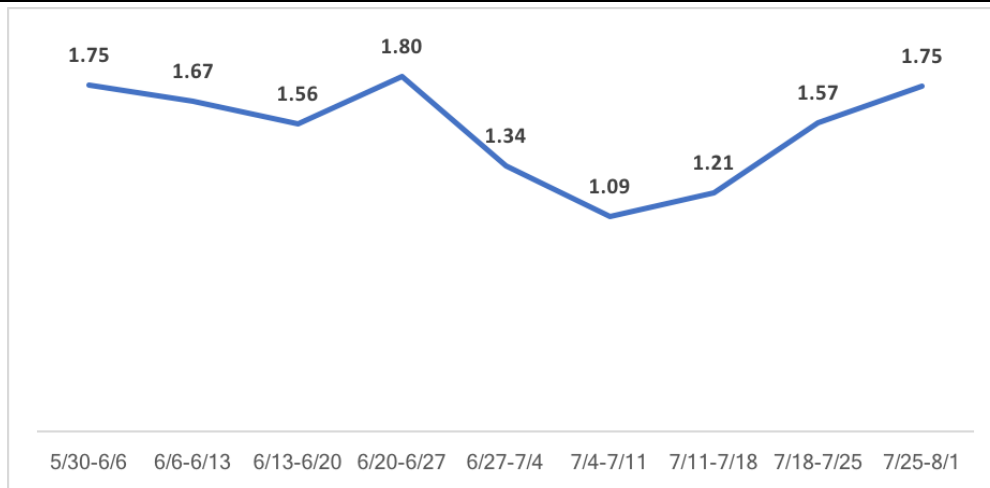
Data Source: Blockchain Node File, Huobi Research

## 1.9 Active Ethereum Addresses

The number of active addresses in Ethereum has continued to increase significantly from 1.565 million last week to 1.754 million, increasing 12.1% and rising for three consecutive weeks.

Figure 10: Number of Active Ethereum Addresses (in millions)





Data Source: Blockchain Node File, Huobi Research

## 1.10 Transactions on Ethereum Network

The transaction volume on the Ethereum network decreased to 10.47 million ETHs this week, decreased by 4.6% from last week. Number of transactions on the Ethereum network this week was 5.22 million, up 4.6% from 4.99 million last week. The average transaction volume was 2 ETH, decreased by 10% from last week.

Figure 11.1: Overall Trading Volume on ETH (million ETH)

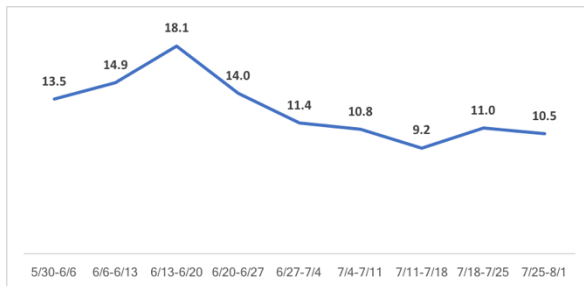
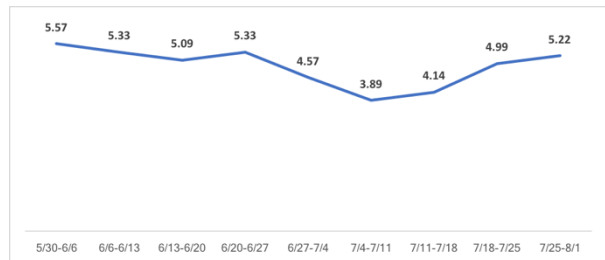


Figure 11.2: Number of Transactions on ETH (in millions)



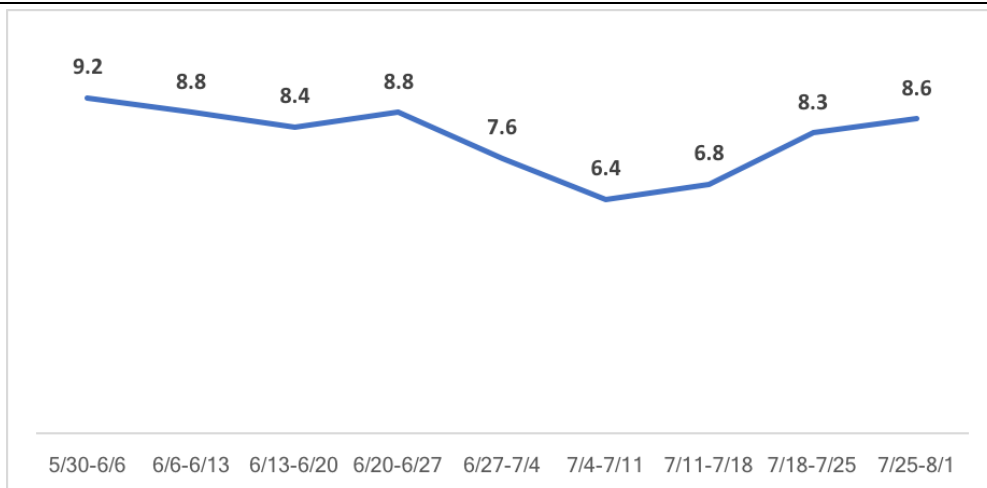
Data Source: Blockchain Node File, Huobi Research

Data Source: Blockchain Node File, Huobi Research

## 1.11 Ethereum TPS

This week, Ethereum's average transaction per second was 8.6, up 3.6% from last week and increasing for three consecutive weeks.

Figure 12: Ethereum TPS

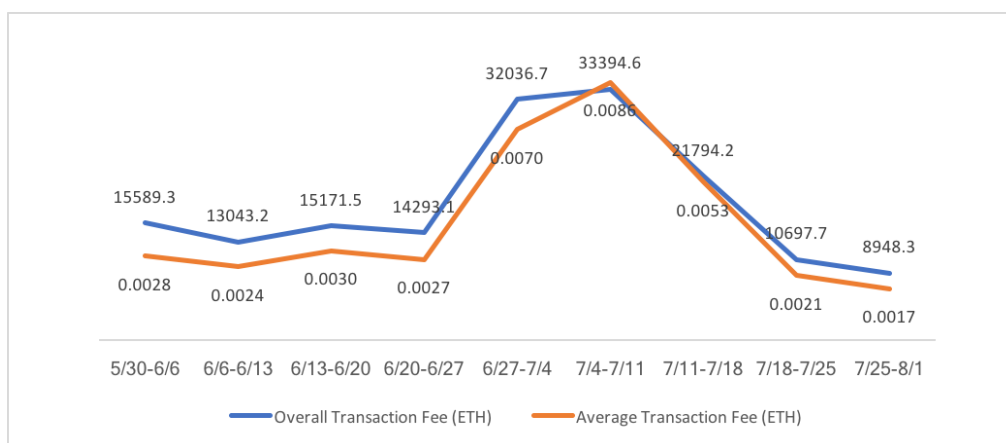


Data Source: Blockchain Node File, Huobi Research

## 1.12 Ethereum Transaction Fee

This week, Ethereum's total transaction fee has continued to decrease from **11,000 ETH to 9,000 ETH, the lowest in two months**. The average transaction fee was **0.0017 ETH, decreased by 19% compared to that of last week**.

Figure 13: Ethereum Transaction Fee

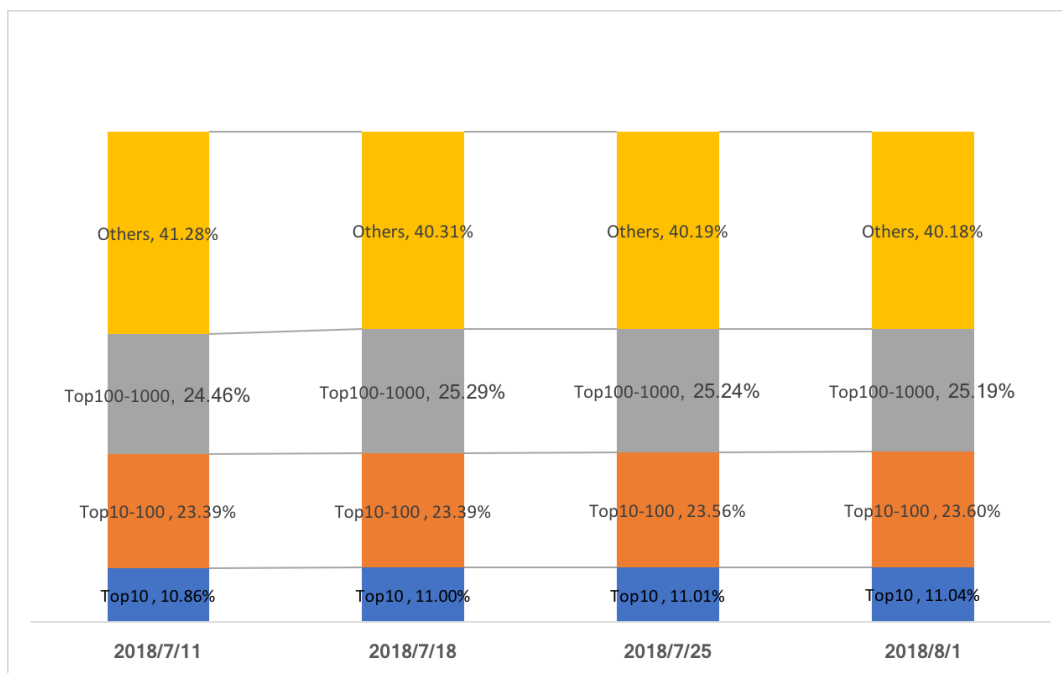


Data Source: Blockchain Node File, Huobi Research

## 1.13 Concentration of Wealth on Ethereum Network

**The concentration of wealth on Ethereum network was nearly unchanged compared to last week.** The top 10 addresses held 11.04% of all ETH, up 0.03% from last week. The top 10-100 addresses held 23.6% of all ETH, up 0.04% from last week. The top 100-1000 addresses held 25.19% of all ETH, decreased by 0.05% from last week's 25.24%. As a result, the remaining addresses held 40.18% of all ETH, decreased by 0.01% from last week's 40.19%, reached the lowest point in recent two months.

Figure 14: Concentration of Wealth: BTC vs. ETH

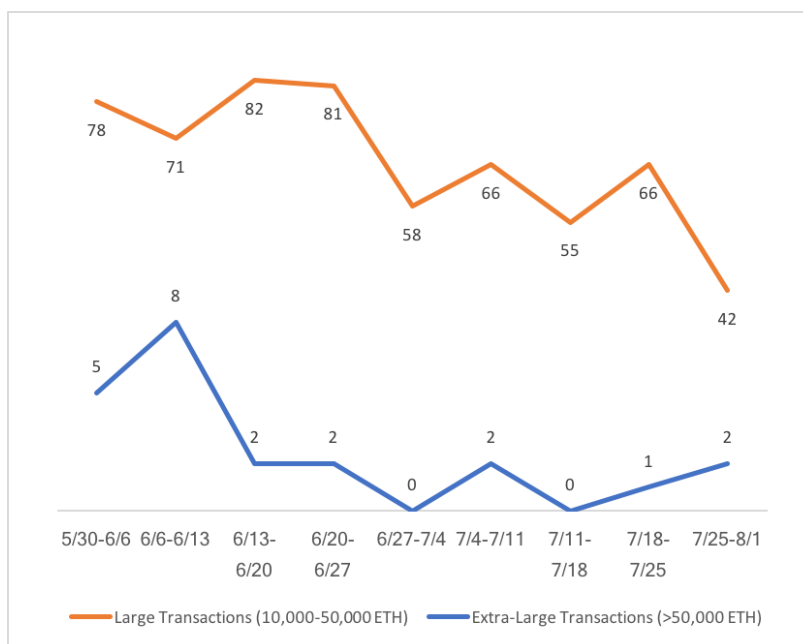


Data Source: Blockchain Node File, Huobi Research

### 1.14 ETH Large Transactions Monitor

Huobi Research defines “extra-large transactions” as individual transactions worth over 5,000 ETH, “large transactions” as those worth between 1,000-5,000 ETH, “other” as those worth under 5,000 ETH. **This week, there were two extra-large transaction of 1194453 ETH in total on ETH network. Investigations shows that this is a transaction between two Bitfinex cold wallets. The number of large transactions decreased from 66 last week to 42.**

Figure 15: Large and Extra-large Transactions on ETH Network

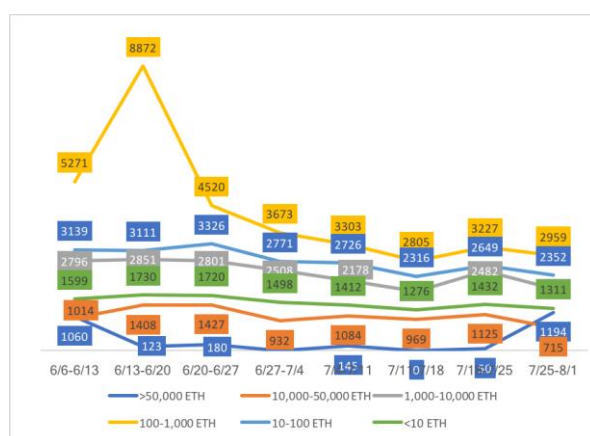


Data Source: Blockchain Node File, Huobi Research

### 1.15 Transaction Volume Distribution of Ethereum

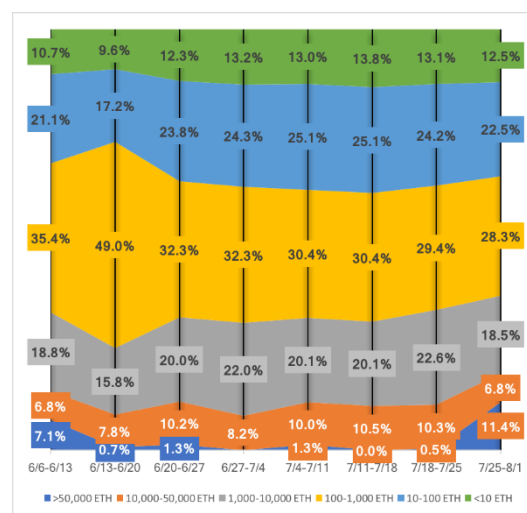
Transaction volume of all ranges of transactions decreased except the “extra-large transactions”. The transactions worth between 10K-50K ETH had the largest decrease in proportion, decreasing from 10.3% to 6.8%.

Figure 16.1: Transaction breakdown by volume (in thousands)



Data Source: Blockchain Node File, Huobi Research

Figure 16.2: Weekly ETH transaction distribution



Data Source: Blockchain Node File, Huobi Research

### 1.16 Change in Balance of Top 30 Ethereum Address

This week, among all top 30 Ethereum address, 4 address had significant changes in their respective balances. Three of them were net inflows and one

of them was net outflows. The address of  
 “0x742d35cc6634c0532925a3b844bc454e4438f44e” had the largest change in balance this week—a net inflow of 24,618 ETH. It was worth noting that the address had large net inflows for three consecutive weeks.

Figure 17: Change in Balance of Top 30 Ethereum Address

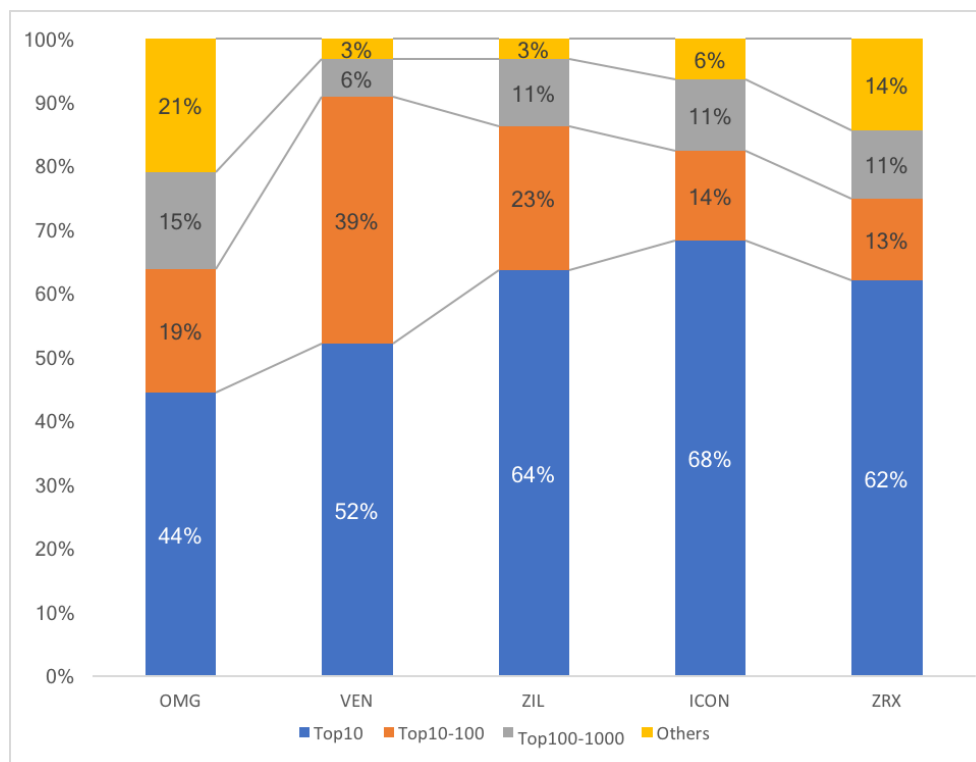
Address	Balance as of 2018/8/1	Balance as of 2018/7/25	Change in Balance
0x281055afc982d96fab65b3a49cac8b878184cb16	1538422.985	1538422.985	0
0x6f46cf5569aefa1acc1009290c8e043747172d89	1510065.642	1510065.642	0
0x90e63c3d53e0ea496845b7a03ec7548b70014a91	1507810.429	1507810.429	0
0x53d284357ec70ce289d6d64134dfac8e511c8a3d	1378754.093	1378754.093	0
0xab7c74abc0c4d48d1bdad5dcb26153fc8780f83e	1000000.011	1000000.011	0
0x742d35cc6634c0532925a3b844bc454e4438f44e   Bitfinex_Wallet5	994163.3476	969545.8326	24618
0xfe9e8709d3215310075d67e3ed32a380ccf451c8   BinanceWallet_4	923964.6471	923964.652	0
0xe853c56864a2ebe4576a807d26fcd4a0ada51919   Kraken_3	801159.2619	801159.2619	0
0x61edcdf5bb737adffe5043706e7c5bb1f1a56eea	775000	755000	20000
0xdc76cd25977e0a5ae17155770273ad58648900d3	723811.4777	723811.4777	0
0xf27daff52c38b2c373ad2b9392652dd4f33303c4	672784.6212	672784.6212	0
0x3d2e397f94e415d7773e72e44d5b5338a99e77d9	672524.3543	672524.3543	0
0xb8487eed31cf5c59bf3f4edd166b949553d0d11	670941.3442	670941.3442	0
0xc0b295669a9fd93d5f28d9ec85e40f4cb697bae   EthDev	663046.7923	663046.7923	0
0xfbb1b73c4f0bda4f67dca266ce6ef42f520fbb98   Bittrex	660464.7903	673714.4677	-13250
0xfca70e67b3f93f679992cd36323eeb5a5370c8e4	614999.8993	614999.8993	0
0x1b3cb81e51011b549d78bf720b0d924ac763a7c2	560000	560000	0
0x6f52730dba7b02beefcaf0d6998c9ae901ea04f9	558116.6972	558116.6972	0
0x5ffc99b5b23c5ab8f463f6090342879c286a29be	552124.1554	552124.1554	0
0x74660414dfe86b196452497a4332bd0e6611e82	549999.9972	549999.9972	0
0x51f9c432a4e59ac86282d6adab4c2eb8919160eb	530000	530000	0
0x52965f9bd9d0f2bba9b5a9c155a455d0e58fe25	493015.4605	493015.4605	0
0x847ed5f2e5dde85ea2b685edab5f1f348fb140ed	483000.0949	483000.0949	0
0xf0160428a8552ac9bb7e050d90eade4ddd52843   DigixCrowdSale	466648.1475	466648.1475	0
0x900d0881a2e85a8e4076412ad1cefbe2d39c566c	450000.05	450000.05	0
0xf1ce0a98efbfa3f8ebec2399847b7d88294a634e	450000.02	450000.02	0
0x3bf86ed8a3153ec933786a02ac090301855e576b	450000	450000	0
0xbf09d77048e270b662330e9486b38b43cd781495	436000	436000	0
0xc02aaa39b223fe8d0a0e5c4f27ead9083c756cc2	396972.6385	394974.7075	1998
0x9d2bfc36106f038250c01801685785b16c86c60d	380000.0418	380000.0418	0

Data Source: Blockchain Node File, Huobi Research

## 1.17 Wealth Concentration Analysis of Popular ERC20 Tokens

Huobi Research performs wealth concentration analysis on the top 5 ERC20 tokens in terms of their respective market caps: OMG, VEN, ZIL, ICON and ZRX. For ZIL, ICON, and ZRX, the top 10 addresses held more than 60% of all tokens in their respective networks. For VEN, ZIL, and ICON, the top 1000 addresses held more than 90% of all tokens in their respective networks. Compared with last week, the wealth of the top addresses of VEN and ICON increased slightly.

Figure 18: Wealth Concentration Analysis of Popular ERC20 Tokens



Data Source: Blockchain Node File, Huobi Research

## 2. Social Media Data

### 2.1 Keyword Analysis (China)

Huobi Research analyzed text using NLP Word Cloud to extract relevant keywords and understand the overall sentiments from China's largest Cryptocurrency online community 8btc.com. Specifically, we break down the keywords to three categories: Cryptocurrencies, Events, and Exchanges/Opinion Leaders.

In the Cryptocurrencies category, **NLP Word Cloud suggests Bitcoin, EOS, and Ethereum as the three cryptocurrencies that received the most widespread attention** (similar to previous weeks), with discussions mainly focused on price and trading strategies.

In the Events category, **NLP Word Cloud suggests "Risk", "Smart Contract" and "Public Chain" as the hottest words of the week.** "Risk" has been the top word for 5 consecutive weeks, with its discussions focused on 1. the risk of

potential BTC price crash; 2. the risk resulted by security vulnerability of USDT; and 3. The risk of using EOS's vulnerable smart contract. Discussions on **"Smart Contract"** focused on the recent security loophole of Blockchain smart contracts, and discussions on **"Public Chain"** focused on the currently ongoing Huobi Chain Superhero Championship Program, as well as the comparison of various public Blockchain platforms.

In the Exchanges/Opinion Leaders category, **NLP Word Cloud** suggests **"Huobi"**, **"OKEX"**, and **"Fcoin"** as the three hottest words of the week. Specifically, posts regarding **"Huobi"** and **"OKEX"** mainly focused on the Cryptocurrency listing procedures and their respective Cryptocurrency prices, with discussions on **"Huobi"** also focused on the currently ongoing HCSCP voting. Discussion on **"Fcoin"** focused on the recent price crash of FT.

Figure 19: 8btc.com Word Cloud



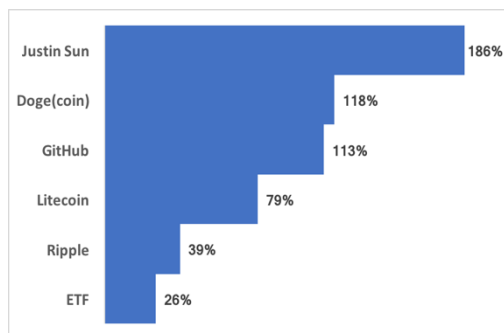
Data Source: Huobi Research

We witness a drastic change in the trending topics this week, with focus on "Justin Sun", "Doge(coin)", "GitHub", "Litecoin", "Ripple" receiving the largest increase, while focus on "Xu Mingxing (of OKcoin)", "Bitstamp", "Coinbase", "Airdrop" and "Dividends" receiving the largest decrease.

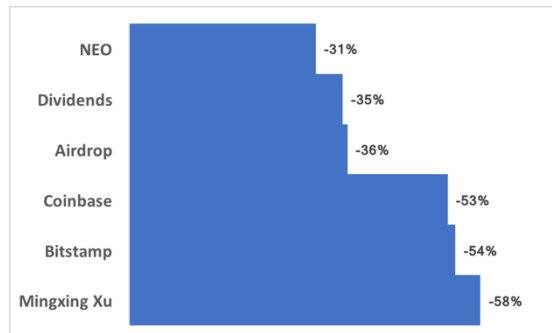
Figure 20.1: Least Trending Topics on 8btc.com

Figure 20.2: Most Trending Topics on 8btc.com





Data Source: Huobi Research



Data Source: Huobi Research

## 2.2 Keyword Analysis (Overseas)

We also performed NLP Word Analysis on Reddit's r/CryptoCurrency Subreddit to understand the trending topics and overall sentiments overseas, and we similarly broke down the keywords into three categories: Cryptocurrencies, Events, and Exchanges/Opinion Leaders.

In the Cryptocurrencies category, NLP Word Cloud suggests that, "**Bitcoin**", "**Ethereum**", and "**Ripple**" were the three cryptocurrencies that received the most widespread attention this week. Discussions on Bitcoin focused on the recent BTC price as well as the rejection of Winklevoss ETF proposal, while discussions on Ethereum focused on price, trading strategy, and the recent news that Australia's Commonwealth Bank utilized Ethereum-based Blockchain solution for international trade. Discussions on Ripple this week focused on the rumor that Bill Clinton will attend Ripple's conference.

In the Events category, NLP Word Cloud suggests "**BOT**", "**Community**" and "**Mining**" as the three hottest words of the week. Discussions on "**BOT**" focused on its trading strategy, while discussions on "**Mining**" focused on the recent 10% increase in Bitcoin's Hashrate, which would make Bitcoin mining even more unprofitable. "**Community**" referred to the discussion of the "Cryptocurrency project with the strongest community support."

In the Exchanges/Opinion Leaders category, NLP Word Cloud suggests "**Coinbase**", "**Binance**", and "**Vitalik**" as the three hottest words of the week, with discussions on "**Vitalik**" focused his tweet that says people should pay less attention to ETF and more attention to the actual adoption of the Blockchain technology.

The image displays three word clouds, each representing a different facet of the cryptocurrency world. The first word cloud, titled 'Cryptocurrencies', features terms like 'BTC', 'ETH', 'DASH', 'Ripple', and 'IOTA'. The second word cloud, titled 'Events', includes words such as 'bot', 'platform', 'decentralized', 'community', and 'ETF'. The third word cloud, titled 'Leaders', lists names like 'Vitalik', 'Binance', 'coinbase', and 'satoshi'.

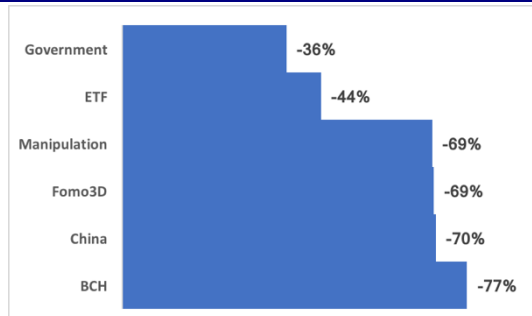
**Cryptocurrencies**

**Events**

**Leaders**

This week on r/CryptoCurrency, the focus on “BNB”, “Vitalik”, “Monero”, “Mining”, “Ripple” has received the largest increase, while focus on “BCH”, “China “Fomo3D”, “Manipulation” and “ETF ” receiving the largest decrease in a week.

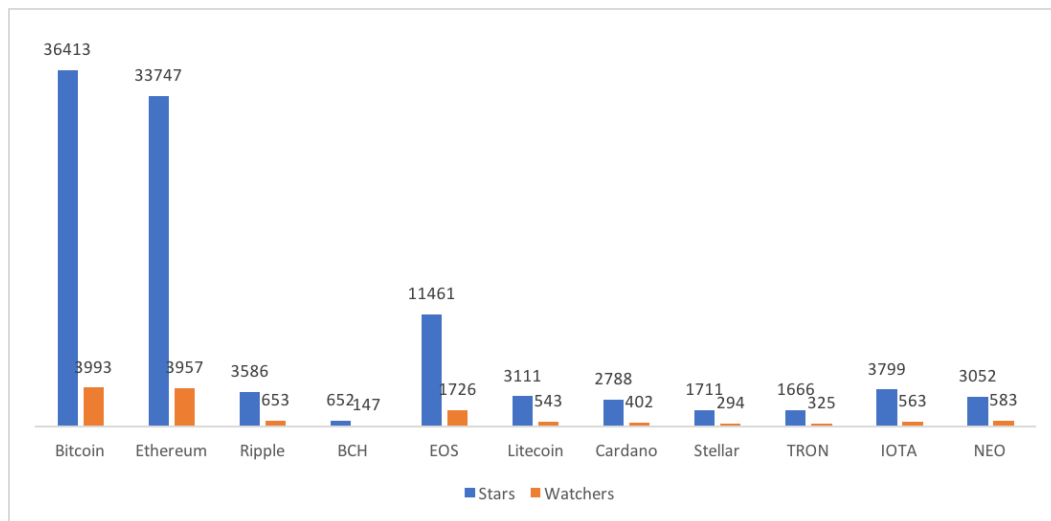
Figure 22.2: Most Trending Topics on r/CryptoCurrency



Data Source: Huobi Research

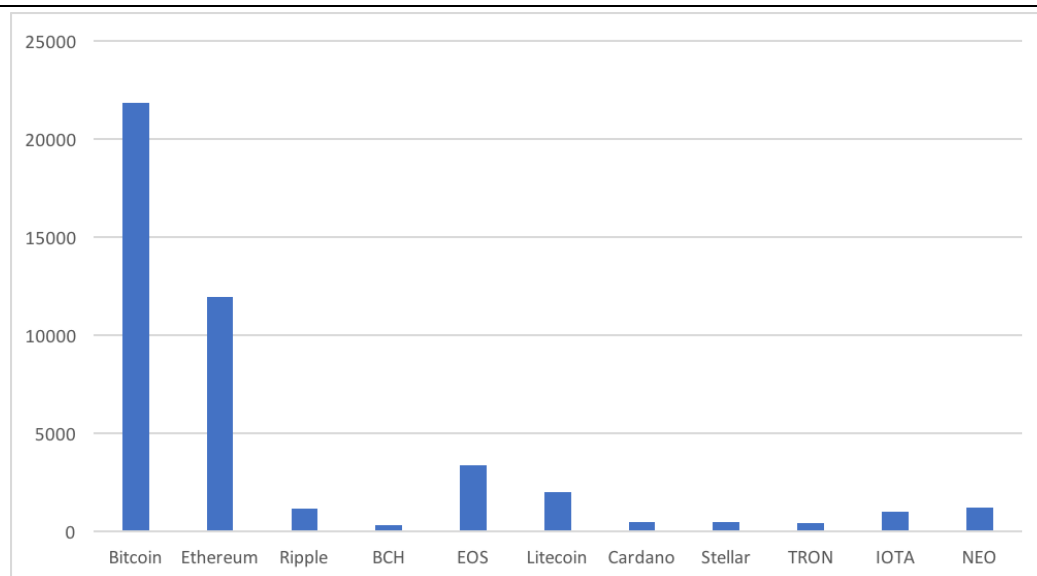
## 2.3 GitHub Code Activity

Figure 23: Stars and Watchers on GitHub



Data Source: GitHub, Huobi Research

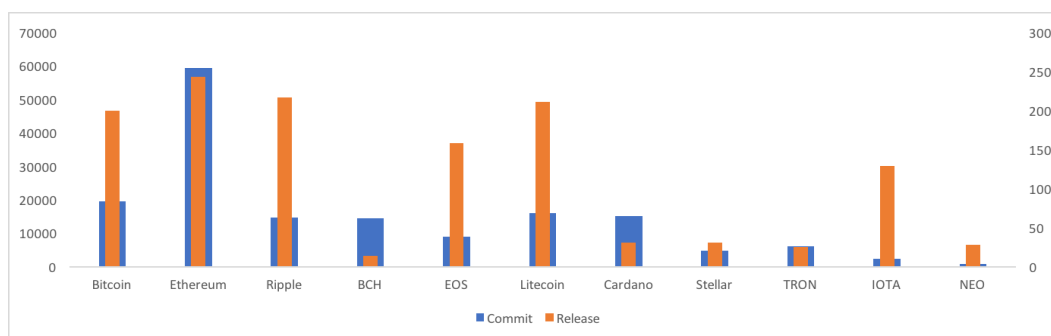
Figure 24: Forks on GitHub



Data Source: GitHub, Huobi Research

Among all GitHub repositories, **ETH, BTC, and Cardano** are the **Cryptocurrency projects with the most commits**, while **ETH, Ripple and Litecoin** are the projects with the most releases.

Figure 25: Commits and Releases on GitHub

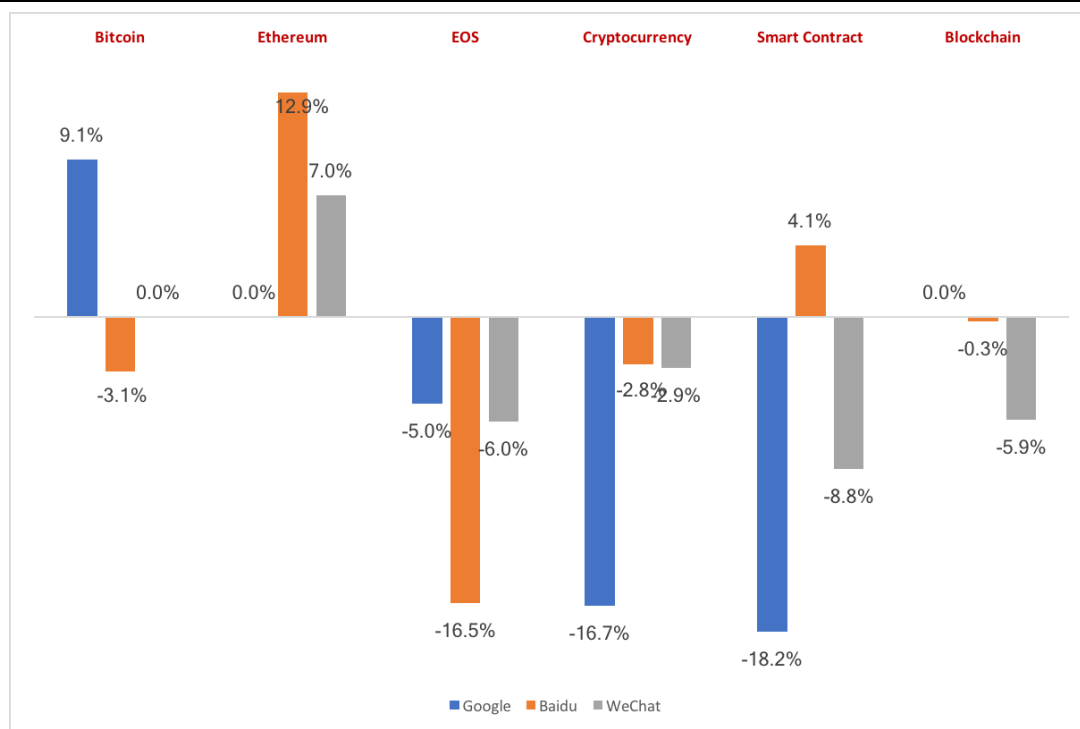


Data Source: GitHub, Huobi Research

## 2.4 Search Trends

This week, there has been decreasing searching interest for Cryptocurrency-related keywords on Google, Baidu, and WeChat. The only exceptions were search for “Bitcoin” and “Ethereum” on Google, and search for “Smart Contract” on Baidu. **Search for “Cryptocurrency” and “Smart Contract” on Google has decreased by 16.7% and 18.2%, respectively, while search for “EOS” on Baidu has decreased by 16.5%.**

Figure 26: Weekly Changes in Search Trends



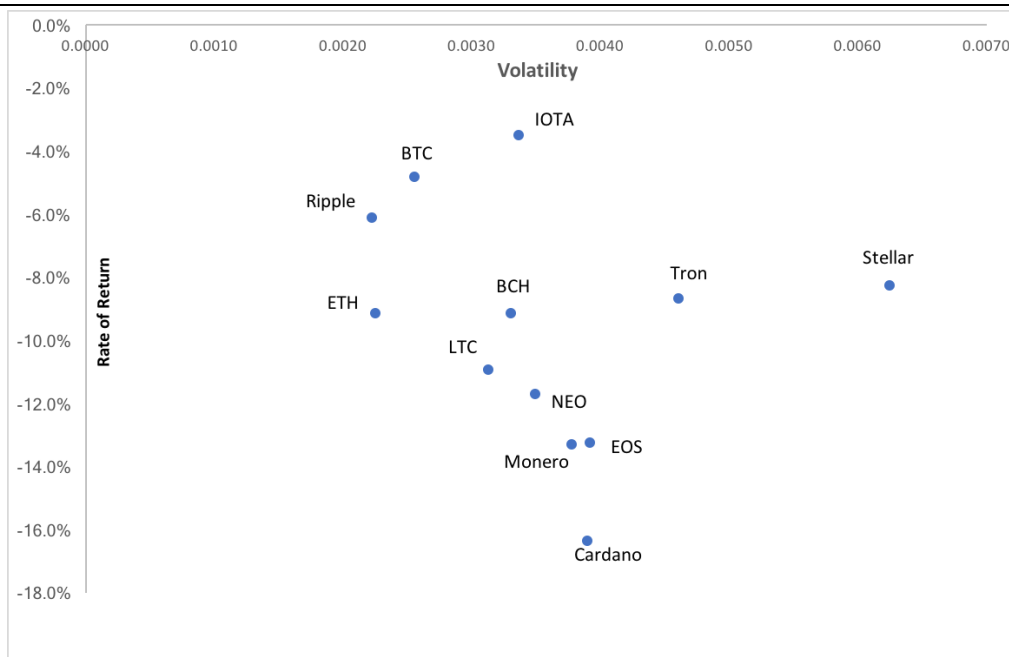
Data Source: Huobi Research, Google Trend, Baidu Index, Wechat Index

### 3. Market Data

#### 3.1 Rate of Return/Price Volatility

**In the cryptocurrency market this week, the price of most top 10 cryptoassets experienced increase to various degrees.** Among all top 10 cryptocurrencies, Stellar experienced the largest decrease of 16.4% and IOTA experienced the smallest decrease of 3.5% in their respective prices. In terms of price volatility, Ripple has the smallest volatility rate of 0.0022 s.d. (standard deviation of price fluctuation in every 15 minutes), and Stellar has the largest volatility rate of 0.0062 s.d.

Figure 27: Rate of Return vs Price Volatility

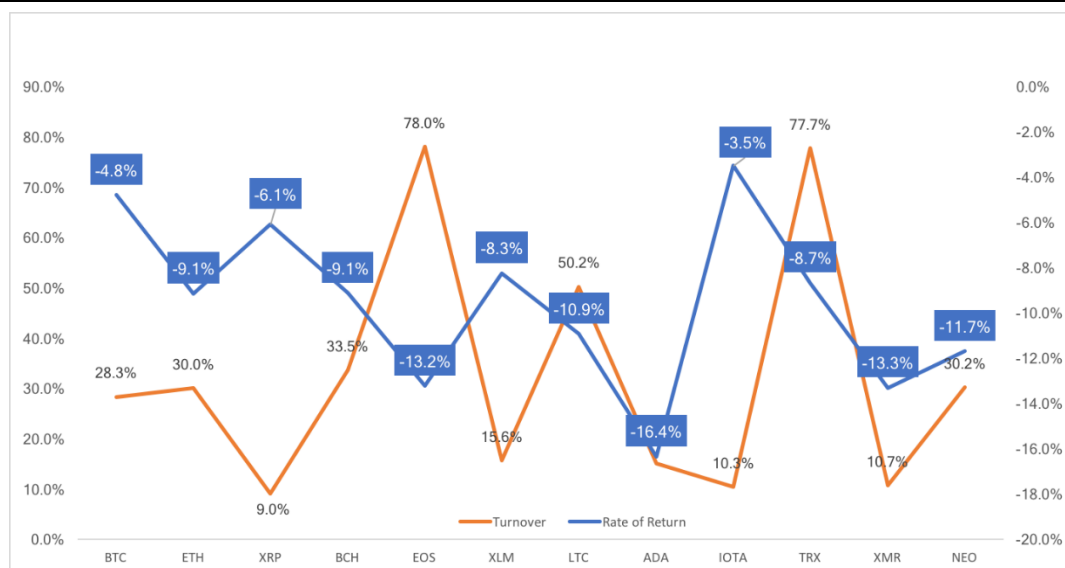


Data Source: Huobi Research, Coinmarketcap

### 3.2 Turnover

**EOS, TRON** and **LTC** were the three cryptocurrencies with the largest turnover this week, each with 78% (52.7% last week), 50.2% (37.3% last week), and 50.2% (37.3% last week) respectively. **Ripple, IOTA** and **Stellar** had the smallest turnovers this week, each with 9% (compared to 7.4% last week), 10.3% (compared to 9.2% last week) and 15.5% (compared to 5.4% last week), respectively. In general, overall turnover of top 10 cryptocurrencies has been similar compared to last week.

Figure 28: Rate of Return vs Turnover



Data Source: Huobi Research, Coinmarketcap

### 3.3 Cryptocurrency Price Correlations

Correlation amongst assets is the degree to which they move in tandem. The matrices above show Pearson correlations and p-values that are computed from log-returns of volume-weighted average daily prices over the past week.

This week, there is high correlation between the price of all top 10 Cryptocurrencies except for BTC, TRON and IOTA. BCH/IOTA and BTC/IOTA had the lowest correlation coefficient of 0.26 and 0.38, while Cardano/EOS and Cardano/ETH had the highest correlation coefficient of 0.97.

Figure 29: Pearson Correlations Matrix between Cryptocurrencies

	bitcoin	ethereum	ripple	BCH	eos	stellar	litecoin	cardano	iota	tron	monero	neo
bitcoin	1.00	-0.18	-0.31	0.22	-0.15	0.38	0.01	0.04	-0.47	-0.34	0.05	-0.39
ethereum	-0.18	1.00	0.95	0.88	0.94	-0.18	0.93	0.54	0.92	0.90	0.83	0.94
ripple	-0.31	0.95	1.00	0.83	0.95	-0.15	0.92	0.63	0.97	0.96	0.86	0.98
BCH	0.22	0.88	0.83	1.00	0.87	0.07	0.95	0.67	0.73	0.79	0.88	0.79
eos	-0.15	0.94	0.95	0.87	1.00	-0.03	0.95	0.71	0.92	0.95	0.87	0.95
stellar	0.38	-0.18	-0.15	0.07	-0.03	1.00	0.01	0.53	-0.18	-0.06	-0.03	-0.15
litecoin	0.01	0.93	0.92	0.95	0.95	0.01	1.00	0.68	0.86	0.89	0.92	0.90
cardano	0.04	0.54	0.63	0.67	0.71	0.53	0.68	1.00	0.58	0.70	0.64	0.62
iota	-0.47	0.92	0.97	0.73	0.92	-0.18	0.86	0.58	1.00	0.96	0.78	0.99
tron	-0.34	0.90	0.96	0.79	0.95	-0.06	0.89	0.70	0.96	1.00	0.82	0.97
monero	0.05	0.83	0.86	0.88	0.87	-0.03	0.92	0.64	0.78	0.82	1.00	0.83
neo	-0.39	0.94	0.98	0.79	0.95	-0.15	0.90	0.62	0.99	0.97	0.83	1.00

Data Source: Huobi Research

## Huobi Research

### About Us:

Huobi Research was founded in April 2016 and started research and explorations in various aspects in Blockchain area since March 2018. We cover various fields such as Blockchain technology research, industry analysis, application innovation and economic model explorations. We aim to establish a research platform and to offer theoretical foundations as well as judgements of trends in Blockchain to the public, ultimately promoting the development of the Blockchain industry.

*Huobi Data Analytics Weekly* aims to provide participators of the cryptocurrency market with the most up-to-date and comprehensive database to help them facilitate decision-making process.

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