

# **F50's 2018 VC Blockchain Report**

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## Introduction to Blockchain

- A blockchain is a decentralized immutable digital ledger that can facilitate secure online transactions and assets between non-trusted parties
- The cornerstone of cryptocurrencies, blockchain uses cryptography to link chains of transactional blocks to avoid collusion of the network
- This secured system is a cost-effective way to replace the need for a central institution or monetary authority to lower the uncertainty of interactions between non-trusting entities



## Overall trend

- Total cryptocurrency market cap breaks \$600 billion (<https://www.coindesk.com/research/state-blockchain-2018/?slide=18> )
- Digital asset outperformed by traditional assets; average transaction fee raised.
- Blockchain can be used in a variety of applications in the future. For example, even for the government, they can record or track someone's ownership or asset ownership this way to save space and budget. Retail and E-Commerce are also big segments that can use blockchain as a platform and establish the ownership of products in a decentralized database.



## Influence in Different Industries

Different industries analysis (see the pie chart)

Blockchain has matured since its introduction in 2008 to a point where it is poised to overhaul many different industries. Any industry that needs a middle man to provide certainty, transparency, and common identity in transactions between non-trusted entities is a candidate for such changes. Financial applications such as managing an ongoing contract between users (such as an escrow) and tokenization of physical assets (such as mortgage) are common use-cases. But non-financial applications are also good. Open contracts between any party for transparent engagement at any time is a good example. CryptoKitties gained international attention at the end of 2017 as the first blockchain based online game in the world. The game is quite similar to other online pet-breeding games, but interaction requires using actual blockchain accounts and cryptocurrency for participation. The logic needed to implement such contracts can be an inherent part of most any blockchain, but it is the main focus and most mature in Ethereum and hence CryptoKitties and many other applications are built on top of this blockchain.



## Regulation

US CFTC approved bitcoin future  
(\*need research)



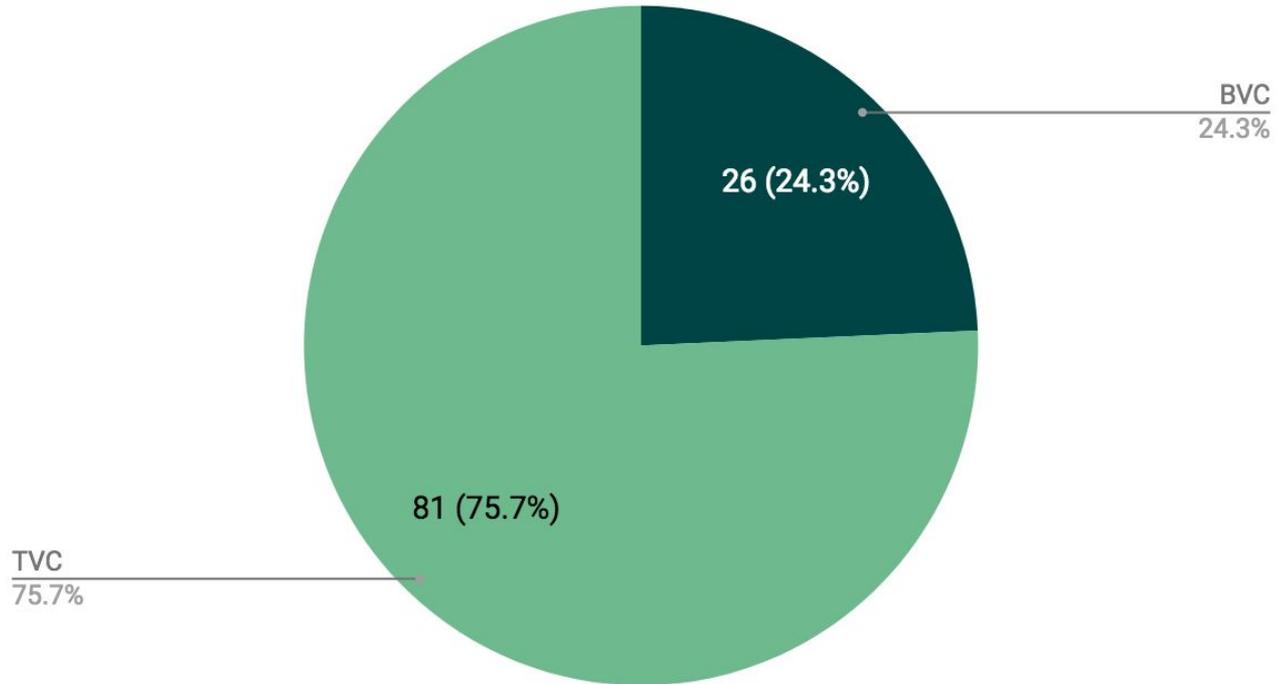
# Fact Sheets

Over 1600 Blockchain companies worldwide



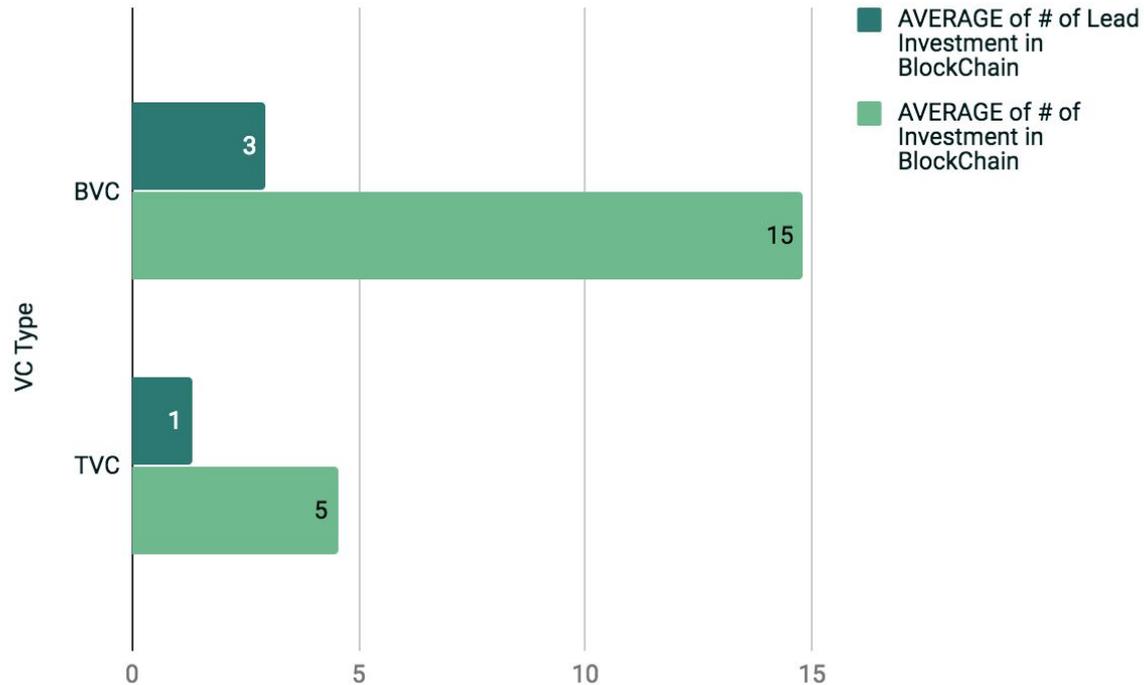
Over 400 Venture Capitals from China and the  
United States invested in Blockchain

## Venture Capital Types



Of the 107 selected VCs with investments in the Blockchain Industry, 81(75%) of them are traditional VCs while 26 (24.3%) of them are VCs dedicated to the Blockchain/Cryptocurrency industry.

## Average of # of Lead Investment in Blockchain v.s. VC Type

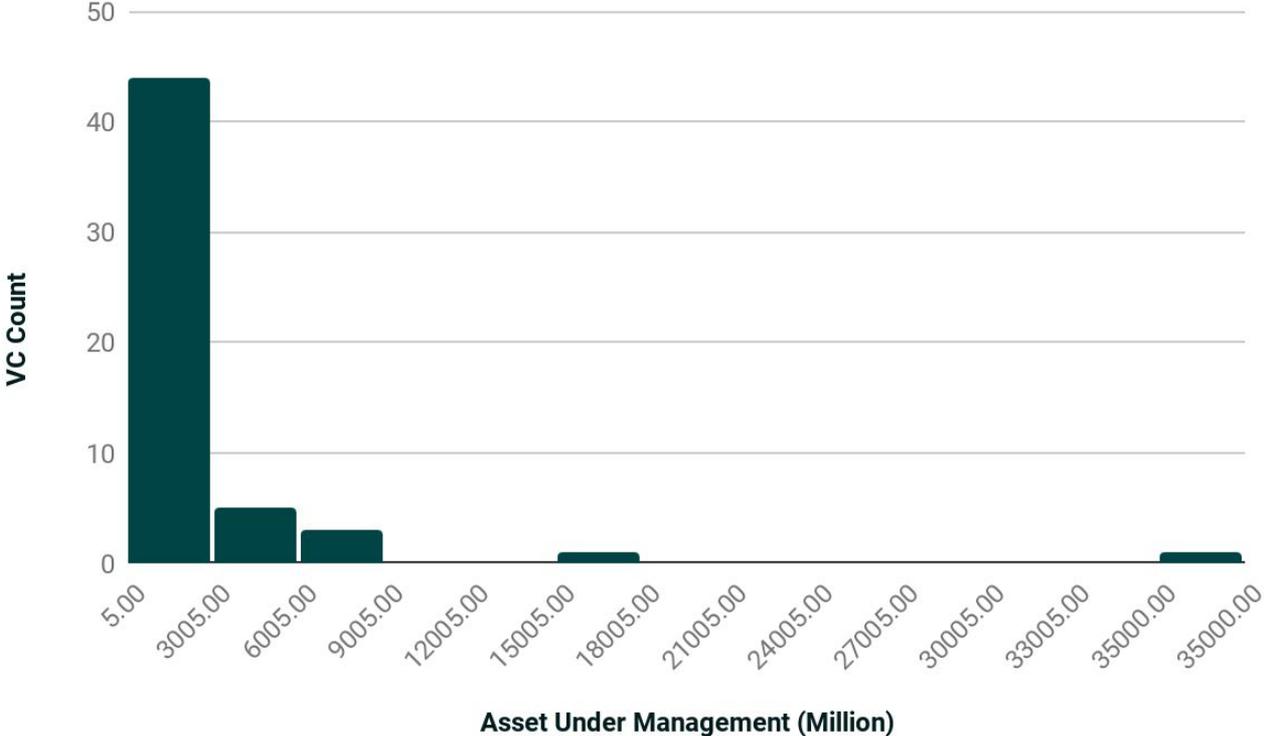


On average, VCs that are dedicated to Blockchain investments have more investments and lead investment in Blockchain than traditional VCs do.

## AUM v.s. Num of Investments In Blockchain (Log Scaled)

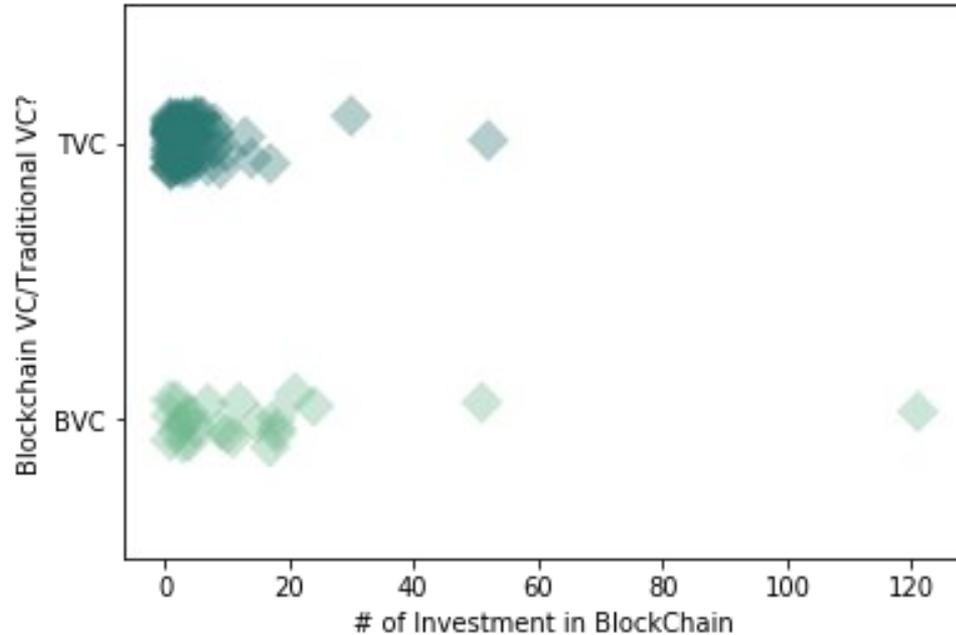


# AUM v.s. VC Count



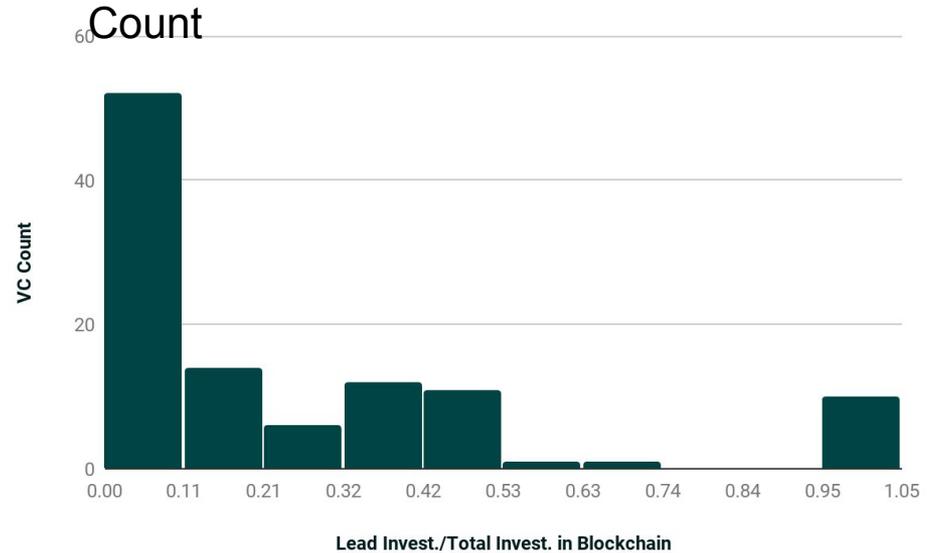
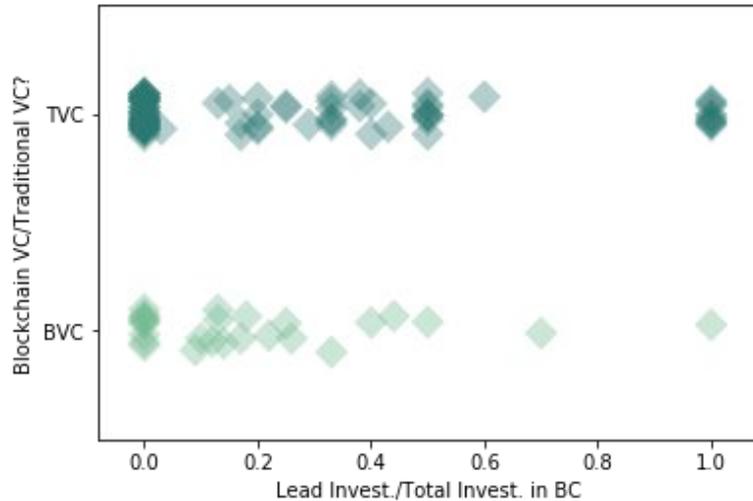
Large portion of the selected VCs that invest in Blockchain industry are small and mid-size VCs. Only a few selected VCs possess AUM over 1 billion.

## # of Investments in Blockchain v.s. Blockchain VC/Traditional VC



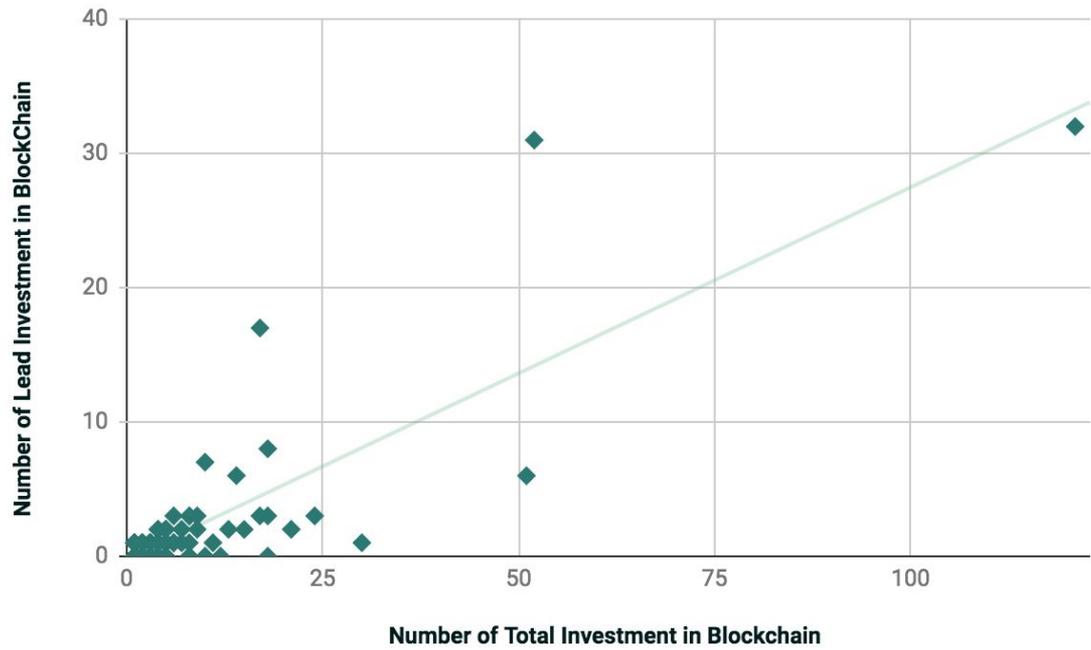
Of the 107 selected active VCs in Blockchain investments, the majority of both traditional VCs and Blockchain VCs' investments in Blockchain lie between 0 and 20. A few blockchain VCs have more investments in Blockchain, up to 120.

## Lead Investments/ Total Investments in Blockchain v.s. VC Type *and* VC

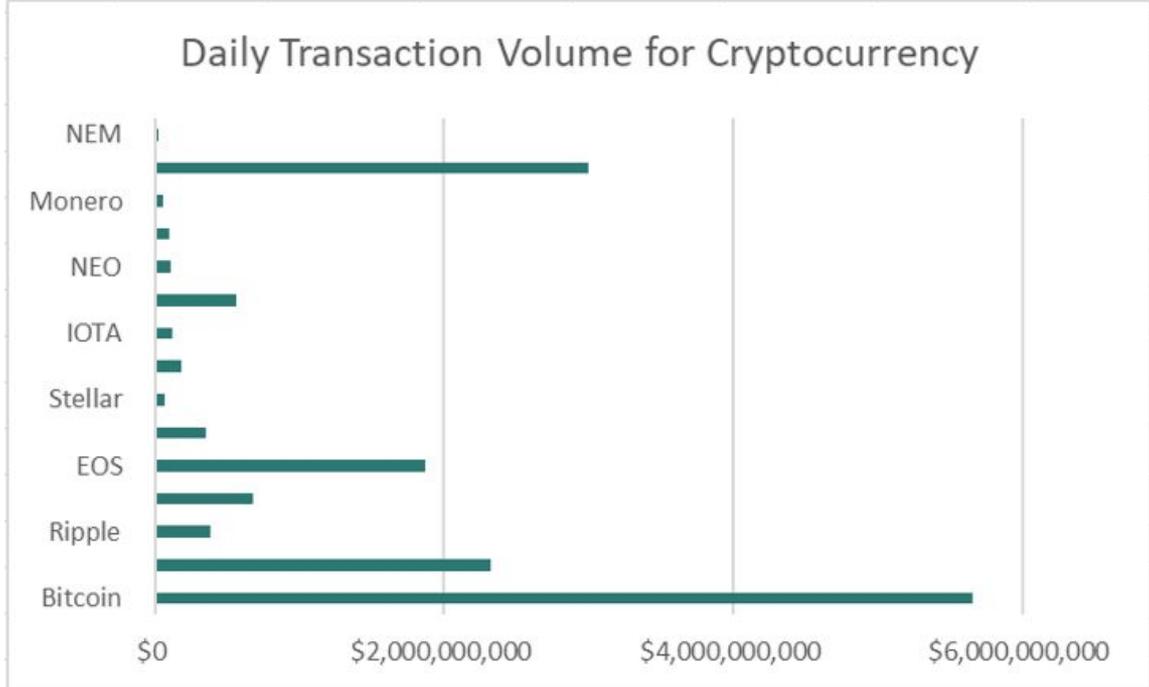


Many of both the traditional VCs and the blockchain VCs tend to invest in smaller check size in Blockchain. Majority of the selected VCs have between 0 and 50% of their Blockchain portfolio as the lead investor. Only a few of the VCs lead in all their Blockchain investment.

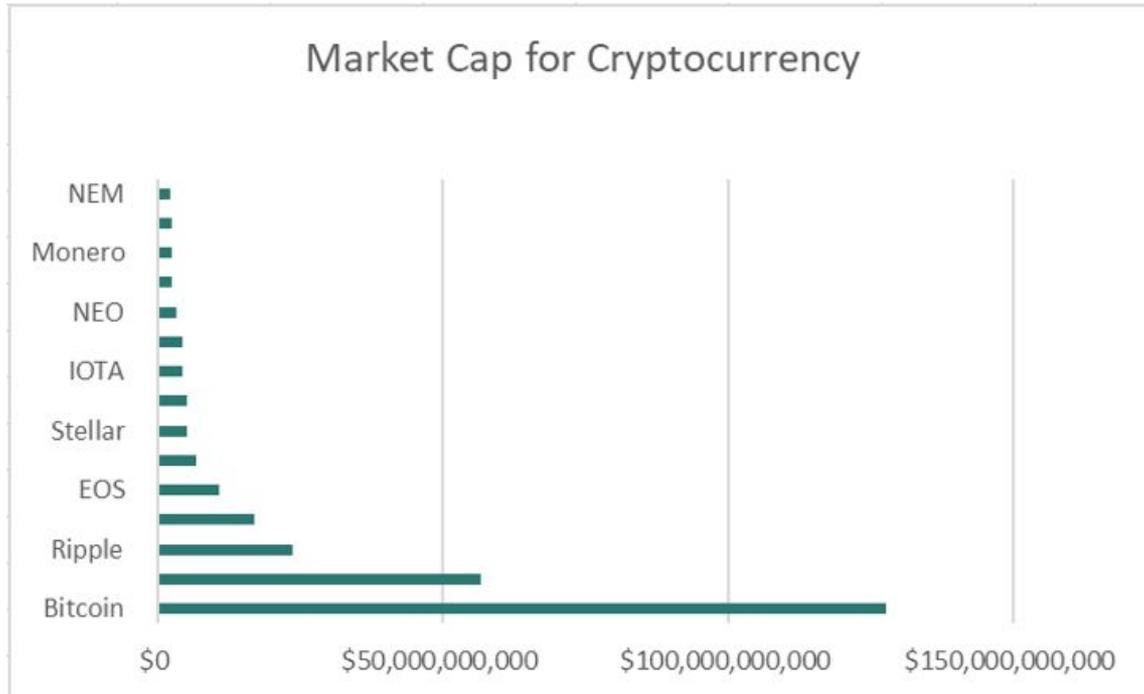
# # of Total Investments in Blockchain v.s. # of Lead Investment in Blockchain



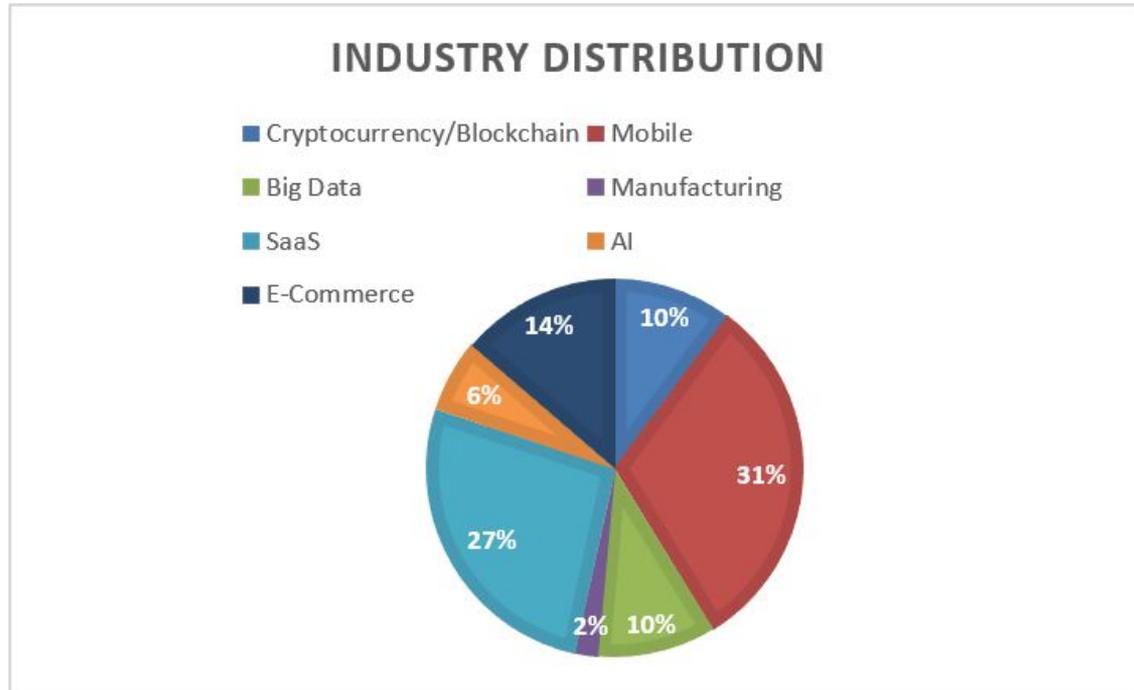
Overall, there is a linear relationship (R squared = 0.689) between the number of the selected VCs' total investment in Blockchain and their number of lead investments in Blockchain



(5/29/2018)



(5/29/2018)



The chart above shows the VCs portfolio who are actively invested in blockchain. Mobile and SaaS (Software as a Service) are the biggest markets that they are interested in, with E-Commerce and Big data industries being the second biggest areas that they invested in. Venture capital is mostly focused on the information technology industry, and are passionate about the new areas.



# Cryptocurrency IPO Stats

*Data source: CoinSchedule, CoinDesk*

*\*\*Charts are screenshots from the above mentioned public website.*

*Will build our own charts.*



## Notes about the sources

### ***CoinSchedule***

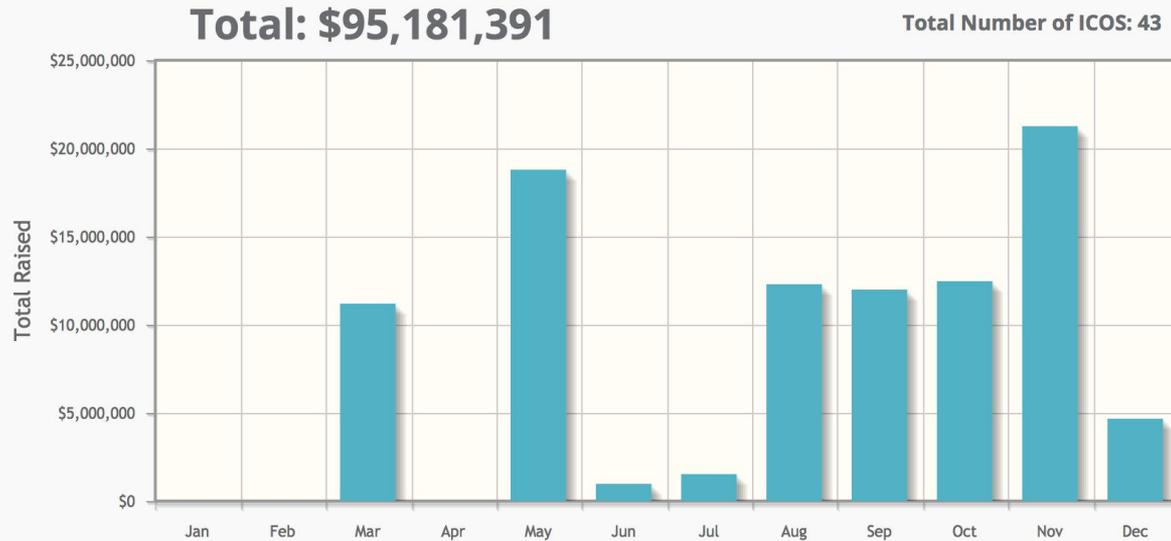
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## 2016 ICOs



### Total raised

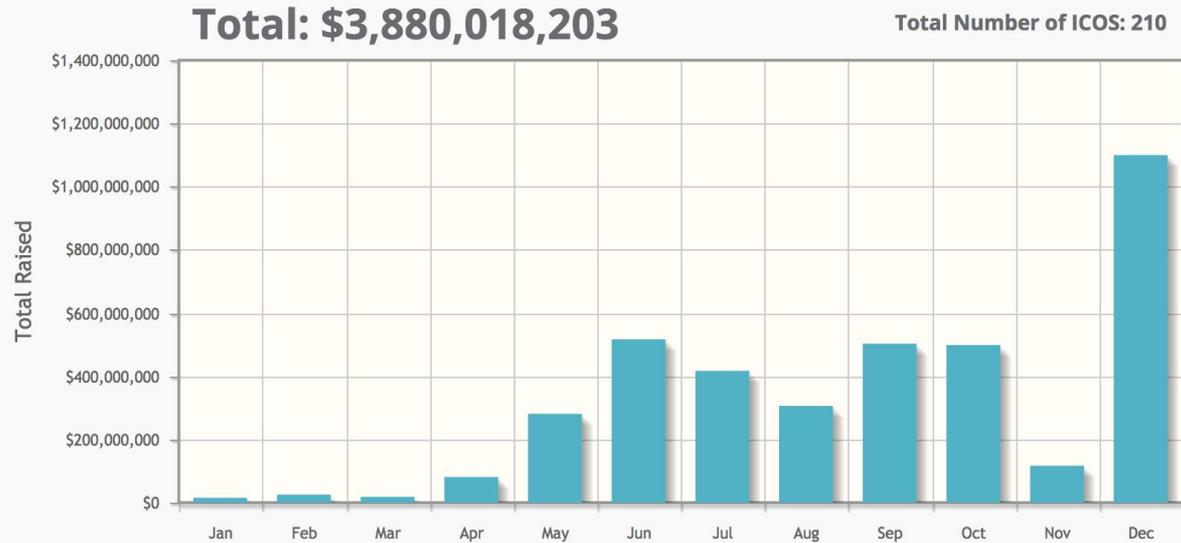
Month	Total Raised
Jan	\$0
Feb	\$0
Mar	\$11,200,000
Apr	\$0
May	\$18,789,734
Jun	\$972,798
Jul	\$1,526,342
Aug	\$12,295,227
Sep	\$11,990,546
Oct	\$12,469,349
Nov	\$21,261,061
Dec	\$4,676,334

**Note: Figures do not include "The DAO" that raised \$168M but was refunded after the smart contract was hacked**

Totals raised are grouped by the ICO closing date and are valued using BTC exchange rate at that time. Data last updated on 22nd May 2018 09:41 UTC



## 2017 ICOs



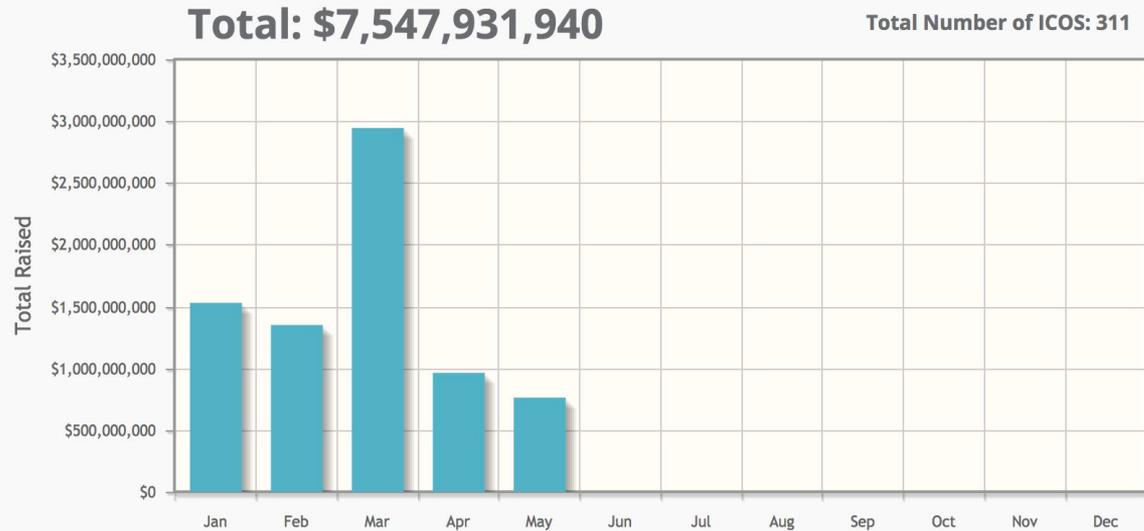
### Total raised

Month	Total Raised
Jan	\$15,358,278
Feb	\$25,460,157
Mar	\$18,660,713
Apr	\$81,427,029
May	\$281,012,458
Jun	\$516,537,695
Jul	\$417,281,712
Aug	\$305,986,446
Sep	\$502,951,511
Oct	\$498,713,046
Nov	\$116,706,256
Dec	\$1,099,922,902

Totals raised are grouped by the ICO closing date and are valued using BTC exchange rate at that time. Data last updated on 22nd May 2018 09:41 UTC



## 2018 ICOs (so far)



### Total raised

Month	Total Raised
Jan	\$1,528,463,335
Feb	\$1,349,743,790
Mar	\$2,944,545,007
Apr	\$963,051,993
May	\$762,127,815
Jun	\$0
Jul	\$0
Aug	\$0
Sep	\$0
Oct	\$0
Nov	\$0
Dec	\$0

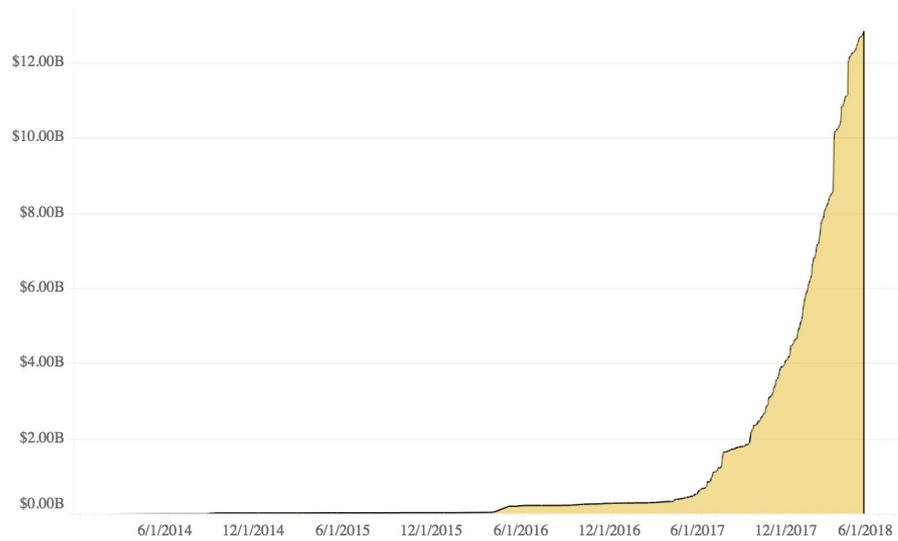
Totals raised are grouped by the ICO closing date and are valued using BTC exchange rate at that time. Data last updated on 21st May 2018 09:11 UTC



# All-Time Cumulative ICO Funding

coindesk

## All-Time Cumulative ICO Funding



## Summary Stats

	Year of Close Date				
	2014	2015	2016	2017	2018
<b>ICO Size (\$mn)</b>	30	9	256	5,482	7,056
<b>Average</b>	4	1	6	16	26
<b>Median</b>	2	1	1	8	14
<b>Max</b>	18	5	152	262	850
<b>Min</b>	0	0	0	0	0
<b>Std. Dev.</b>	7	2	23	28	77
<b>Number of ICOs</b>	7	7	43	343	271

After the first ICO held by Mastercoin in July 2013 (\*Wikipedia Initial coin offering), the total fund raised for ICOs has grown rapidly. The total fund raised in 2017 is over 4 times the fund raised in 2016. The fund raised in 2018 (YTD) already exceeds the total fund raised in 2017 (almost double). The total number of ICOs reached 300 in the first two quarters of 2018, compared to only 43 ICOs in the entire year of 2016.



\*Note that there are discrepancies between the data on CoinDesk and CoinSchedule -- could do a comparison

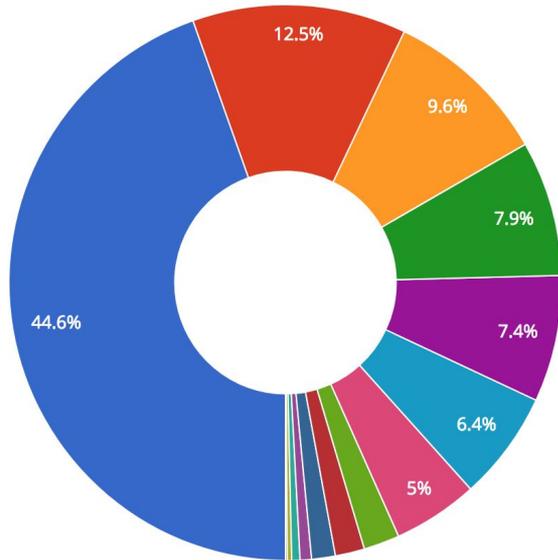


# ICOs by Category

2016-2018



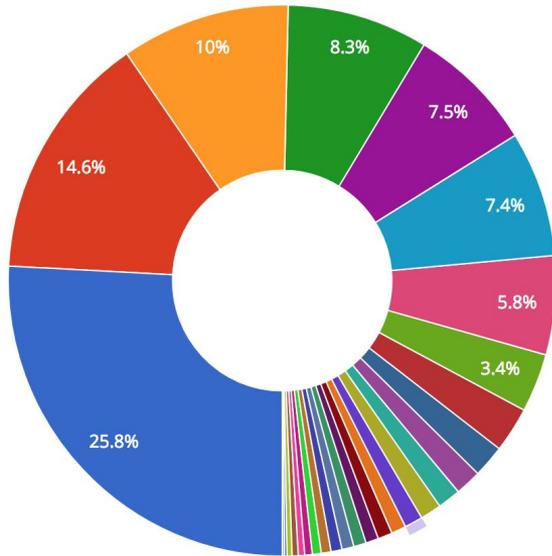
## 2016 ICOs



- Infrastructure 44.6% (\$42,418,850)
- Trading & Investing 12.5% (\$11,895,650)
- Content Management 9.6% (\$9,181,357)
- Events & Entertainment 7.9% (\$7,500,000)
- Commodities 7.4% (\$7,004,367)
- Gaming & VR 6.4% (\$6,065,172)
- Gambling & Betting 5.0% (\$4,728,388)
- Identity & Reputation 2.1% (\$2,000,000)
- Payments 1.7% (\$1,629,798)
- Finance 1.4% (\$1,319,349)
- Transport 0.7% (\$635,000)
- Social Network 0.5% (\$459,000)
- Commerce & Advertising 0.3% (\$244,460)
- Art & Music 0.1% (\$100,000)



## 2017 ICOs

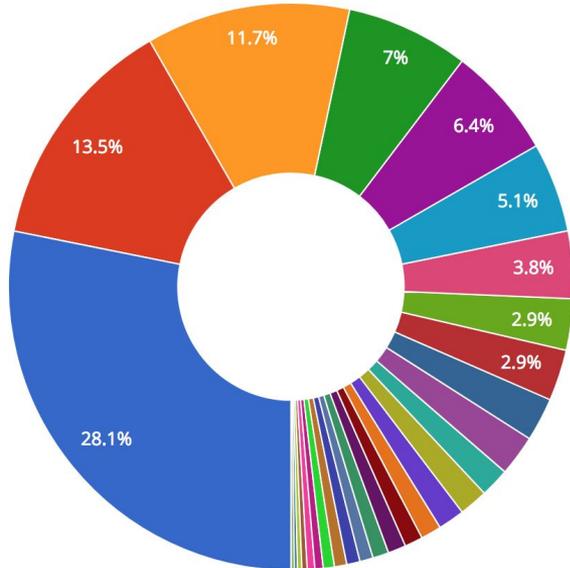


- Infrastructure 25.8% (\$1,002,499,502)
- Finance 14.6% (\$564,621,336)
- Trading & Investing 10.0% (\$386,323,075.47)
- Communications 8.3% (\$322,565,362)
- Payments 7.5% (\$291,219,999)
- Data Storage 7.4% (\$286,222,856)
- Drugs & Healthcare 5.8% (\$225,326,054)
- Gaming & VR 3.4% (\$133,418,167)
- Gambling & Betting 2.7% (\$102,976,302.6)
- Commerce & Advertising 1.9% (\$73,776,158)
- Data Analytics 1.5% (\$60,000,000)
- Machine Learning & AI 1.4% (\$52,658,661)
- Social Network 1.3% (\$48,557,371)
- Privacy & Security 1.1% (\$41,491,443)
- Art & Music 0.9% (\$33,912,088)
- Identity & Reputation 0.9% (\$33,000,000)
- Legal 0.8% (\$29,368,234)
- Energy & Utilities 0.7% (\$28,434,178)

- Events & Entertainment 0.7% (\$27,481,328)
- Real Estate 0.6% (\$25,132,362)
- Education 0.6% (\$22,500,000)
- Mining 0.5% (\$20,218,239)
- Provenance & Notary 0.4% (\$17,376,751)
- Recruitment 0.4% (\$14,473,035)
- Content Management 0.4% (\$13,980,244)
- Transport 0.3% (\$11,529,000)
- Travel & Tourism 0.1% (\$5,796,336)
- Commodities 0.1% (\$4,554,000)
- Supply & Logistics 0.0% (\$347,476)
- Governance 0.0% (\$258,645)



# 2018 ICOs



- Communications 28.1% (\$1,954,424,607)
- Finance 13.5% (\$939,083,359)
- Trading & Investing 11.7% (\$810,344,206)
- Gaming & VR 7.0% (\$487,274,206)
- Payments 6.4% (\$442,476,567)
- Commerce & Advertising 5.1% (\$354,998,000)
- Infrastructure 3.8% (\$266,747,400)
- Supply & Logistics 2.9% (\$203,151,193)
- Machine Learning & AI 2.9% (\$202,869,201)
- Social Network 2.5% (\$171,920,800)
- Drugs & Healthcare 2.3% (\$161,528,011)
- Energy & Utilities 1.7% (\$115,500,000)
- Data Storage 1.6% (\$113,952,711)
- Mining 1.5% (\$105,131,400)
- Marketplace 1.2% (\$81,706,977)
- Identity & Reputation 1.0% (\$71,924,420)
- Privacy & Security 1.0% (\$71,345,621)
- Data Analytics 0.9% (\$63,800,378)

- Compliance & Security 0.8% (\$52,828,101)
- Travel & Tourism 0.8% (\$52,814,816)
- Gambling & Betting 0.7% (\$49,193,027)
- Transport 0.6% (\$44,216,324)
- Art & Music 0.5% (\$32,865,145)
- Governance 0.4% (\$30,000,000)
- Education 0.3% (\$21,164,376)
- Content Management 0.2% (\$17,098,614)
- Recruitment 0.2% (\$12,653,158)
- Real Estate 0.2% (\$11,050,000)
- Commodities 0.0% (\$1,169,000)
- Events & Entertainment 0.0% (\$1,003,600)

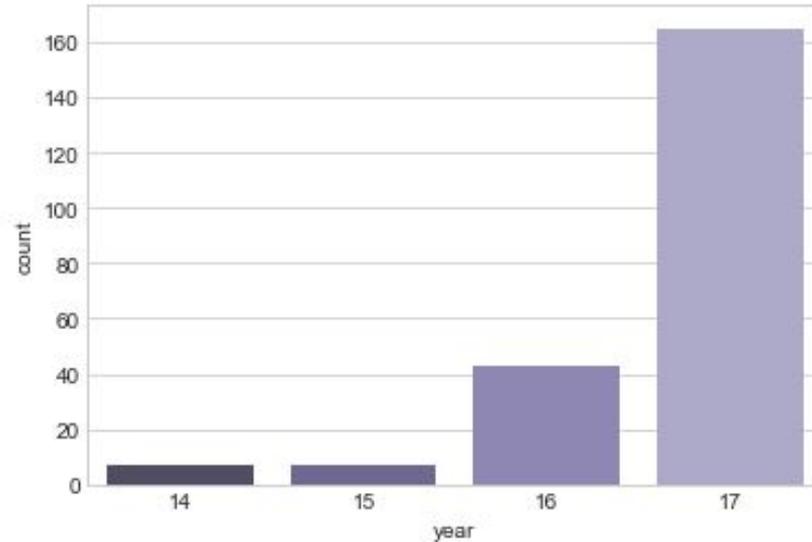


## ICO Categories increase since

- In 2016, almost half (**50%**) of the blockchain ICOs are for infrastructure
- This number shrinks in 2017 and 2018 to around **25%**
- ICO categories expand since 2016
- Increase from **14** to **30** different categories, including Compliance and Security, Governance, and Recruitment

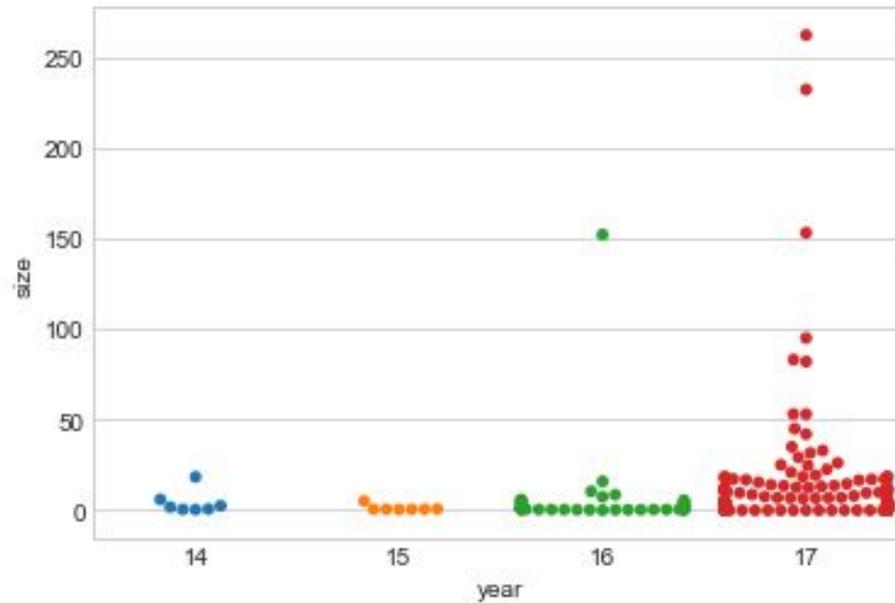


## # of ICOs by Year



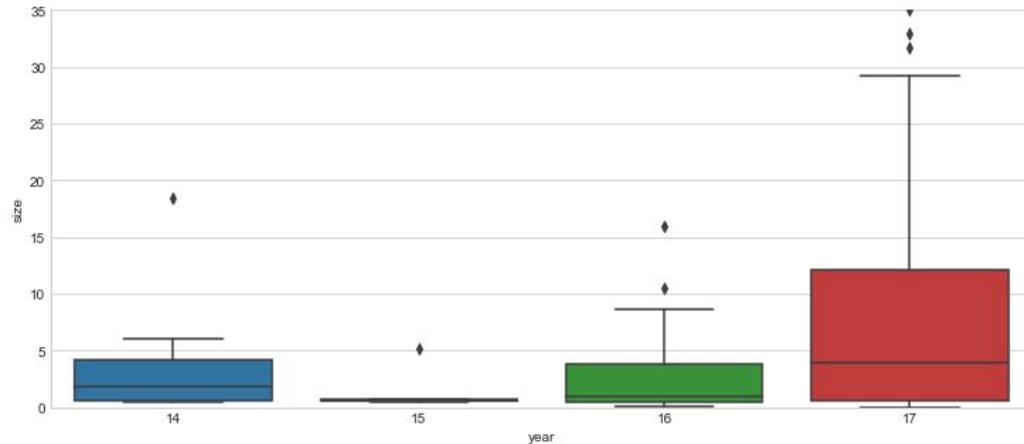


## ICO size by Year





## ICO Size by Year



*Data Source: CoinDesk ICO Data (Outliers removed)*

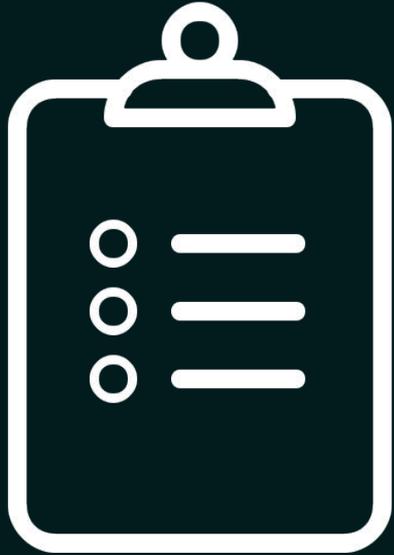
Of the 222 companies that went ICO throughout the period of 01/2014 to 09/2017, the accumulative fund size of the ICOs of these companies was \$2,377.88 million. The medium, as well as the span of the fund size of the ICOs, grew rapidly in the year of 2017.



# **Blockchain Trends**



- Investments expand to more verticals (Financial Services, Real Estate, Healthcare, Ride Sharing, Energy, Human Resources, Games, etc.).
- Accelerator scene in the San Francisco Bay Area. Many of the incubators are focused on bringing U.S. startup tech back to China.
- Government and Regulations getting involved in Blockchain industry.
- ?Developer
- ?Community
- Education and collaboration emerging.
- Amount of ICOs increasing rapidly.



# VC Ranking Guidelines

Initial thoughts, Data collection and preprocessing, and Algorithms



## Initial Thoughts

- Identify market trends in blockchain investment
- Nominate active/top investors in the market
- Provide thoughtful insights into blockchain investment in both US and Chinese markets



# Data Collection and Preprocessing

## Raw Data is collected from the following sources:

- A select group of national and international financial data platforms ( ITJUZI.com, Jingdata, Pitchbook, Crunchbase, etc.)
- Investors/ Companies' Website
- Press releases

## Data Cleaning and Preprocessing

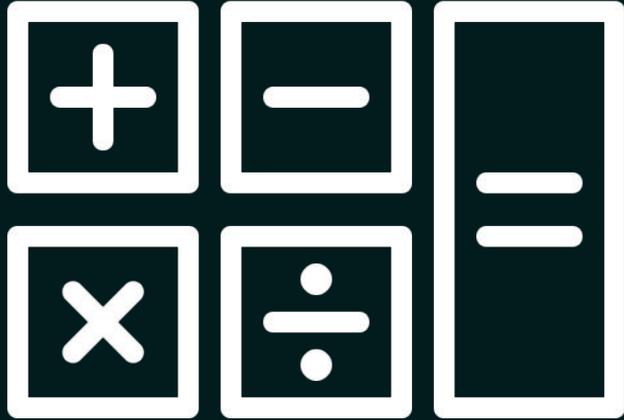
- Filling in missing values by using averages
- Identify outliers and smooth out noisy data
- Correct inconsistent data



## Algorithms

Create metrics with over 10 factors that demonstrate the Venture Capitals' investment activities in the blockchain, including:

1. Asset Under Management (AUM) size
2. Valuation of portfolios and check size
3. Quantity of lead investment in blockchain
4. .....



## Other Analyses

We filtered through several valuable factors with the influence of VC firms that made investments in blockchain since 2014



## Factors

- Assets
- # of Lead Investments in Blockchain
- Check size
- Portfolio Valuation across different perspectives



## How we ranked the companies

- We divided most of the data into two groups, the lead investment in blockchain and the total investment in blockchain to differentiate whether the fund has a special focus in this area
- The check size measures the average amount of money invested in each fund in the blockchain
- To make the ranking more precise, we calculated the check size by dividing the total check size of the investments by the number of investments
- Some numbers and/or data were not available for public disclosure, so we marked them as “NA” to maintain the validity
- The ranking is published in alphabet order, with consideration of each of the categories (selection criteria mentioned above)

## References

- Blockchain Risk Management (Existing inherent risks of blockchain) - Deloitte  
<https://www2.deloitte.com/us/en/pages/consulting/articles/blockchain-risk-management.html>
- Blockchain Top Trend 2017  
<https://channels.theinnovationenterprise.com/articles/blockchain-top-trends-in-2017>
- ICO schedules  
<https://www.coinschedule.com/stats.html?year=2016>
- Global Cryptocurrency Benchmarking Study  
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- CB Insights Blockchain Trends in Review  
<https://www.cbinsights.com/research/report/blockchain-trends-opportunities/>



## Other sources

Icons from Iconfinder

<<https://www.iconfinder.com/iconsets/simpline-mix>>

Slide format/theme from Slide Carnival

<<https://www.slidescarnival.com/warwick-free-presentation-template/813>>



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