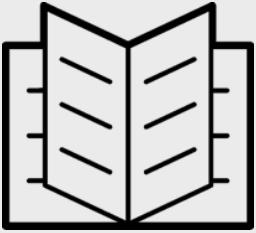


STATE OF

BLOCKCHAIN

Q2 2017

Q2 2017 State of Blockchain: Table of Contents



1. EXECUTIVE SUMMARY

2. PUBLIC BLOCKCHAINS

A. Bitcoin

B. Ethereum

3. ENTERPRISE BLOCKCHAINS

4. INVESTMENT

5. GOVERNMENT & REGULATION

6. SENTIMENT SURVEY

7. COINDESK

A. Research Framework



1

EXECUTIVE SUMMARY



Q2 2017 Overall Summary

Cryptocurrency market cap rallies \$75bn:

- Aggregate valuation of blockchain tokens skyrockets 4x to all-time high above \$100bn

Transaction volumes and fees set records:

- Usage and cost to send cryptocurrencies on numerous blockchains increased dramatically

Permissioned blockchains move forward:

- Major platforms like R3, Hyperledger, and EEA pick up corporate funding, membership, and integrations

ICOs vastly exceed VC funding:

- Blockchain token sales raise \$729m as compared to \$235m of total venture capital, record setting ICO quantities and deal sizes

Regulators increasingly acknowledge reality:

- Blockchain technology, digital currency, and token sales are now far too large for anyone to ignore or refuse to think critically about

Interoperability remains large focus:

- Numerous groups and protocols are now tackling connecting blockchains for transacting and trading on diverse ledgers



Q2 2017 Trends: Public Blockchains



- Combined public blockchain token valuations exceed \$100bn, never exceeded \$25bn prior to Q2
- Bitcoin sheds significant market dominance as ether, xrp, and other long-tail assets rally even more dramatically
- Global trading volumes accelerate and grow in diversity in terms of geography, exchanges, and currency pairs
- Token sales explode, with well over 50 deals and \$700m worth of fundraising in the quarter, several which are currently liquid

Data Sources: [CoinDesk](#), [Image](#)

Notes: Expanded upon in [Section 2: Public Blockchains](#)



Q2 2017 Trends: Enterprise Blockchains



- Hyperledger, EEA, Corda and other permissioned blockchain consortia and platforms continue on with proofs of concept, tests and demos with major traditional enterprises and governments
- R3 raises \$107m in the largest VC deal of the quarter
- Traditional enterprises continue to pour into blockchain in various capacities, frequently join multiple working groups and consortia

Data Sources: [CoinDesk](#), [Image](#)

Notes: Expanded upon in [Section 3: Enterprise Blockchains](#)



Q2 2017 Trends: Investment

- ICOs dramatically outweigh VC in terms of overall blockchain funding from both a quantity and value perspective in Q2
- Very few venture capital raises closed as compared to an explosion in supply of ICO deals with over 50 closed
- Hedge funds and other institutional asset managers move to bring further demand into cryptocurrencies

Data Sources: [CoinDesk](#), [Image](#)

Notes: Expanded upon in [Section 4: Investment](#)



Q2 2017 Trends: Regulation & Government



- IMF discusses Central Bank Digital Currencies, how governments may issue their own DLT based representations of currency
- SEC examining an ETF proposal for ether
- Nevada prohibits local governments from taxing or imposing restrictions upon the use of a blockchain
- Governments worldwide fund and allocate research into the opportunities and risks presented by blockchain technology

Data Source: [CoinDesk](#)

Notes: Expanded upon in [Section 5: Regulation & Government](#)



2

PUBLIC BLOCKCHAINS



Q2 2017 Public Blockchain Summary

Aggregate market cap breaks \$100bn:

- Public blockchain assets rallied 4x, over \$75bn in value within the quarter

Bitcoin dominance falls under 50%:

- Ether, xrp, and other many assets appreciated far more dramatically than bitcoin

Trading volume grows and distributes:

- Exchange trading volumes increased worldwide, now more distributed than ever

ICO funding far outweighs VC:

- Token sales comprised over 3x as much of project funding than traditional venture capital

Asset sectors take more shape:

- Verticals within the asset class become more built out with time and new entrants

Institutional and managed capital entering:

- Massive wave of cryptocurrency focused hedge funds launched and on the horizon

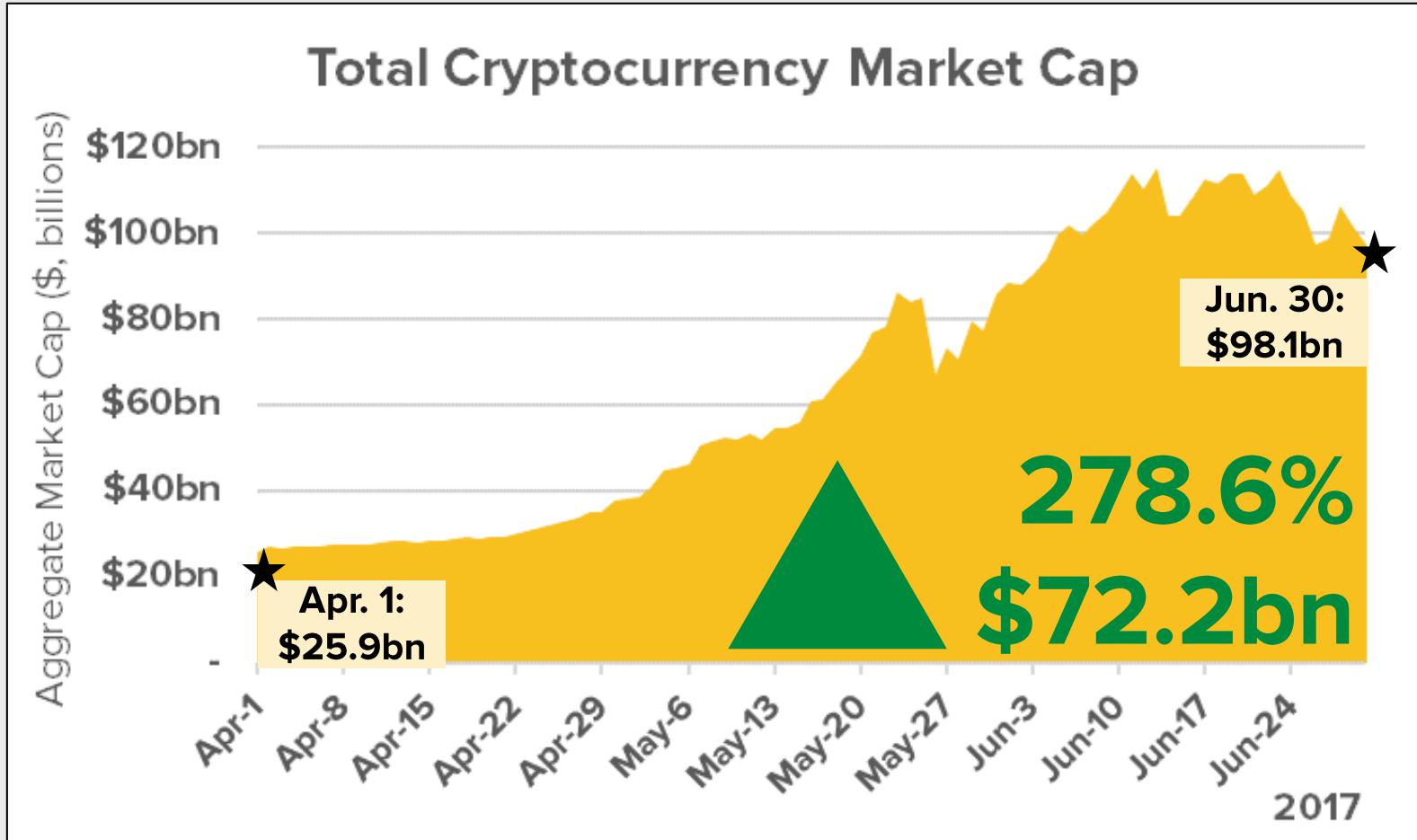
Public Blockchain Assets Dramatically Outperformed Traditional Assets



Data Source: [Yahoo Finance](#), [Coincap](#), [Coin.dance](#)

Notes: Daily data, RWO, GLD, SPY, RWO, CWI, & BTC prices, all cryptocurrency market cap, data through 6/30/2017

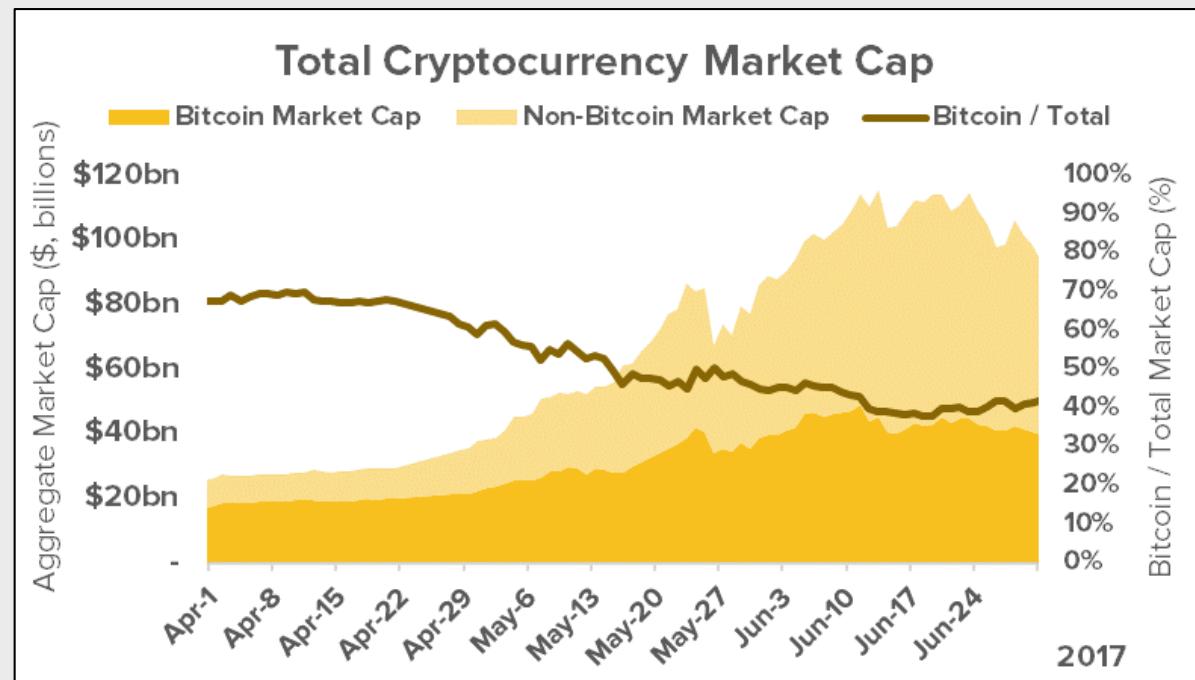
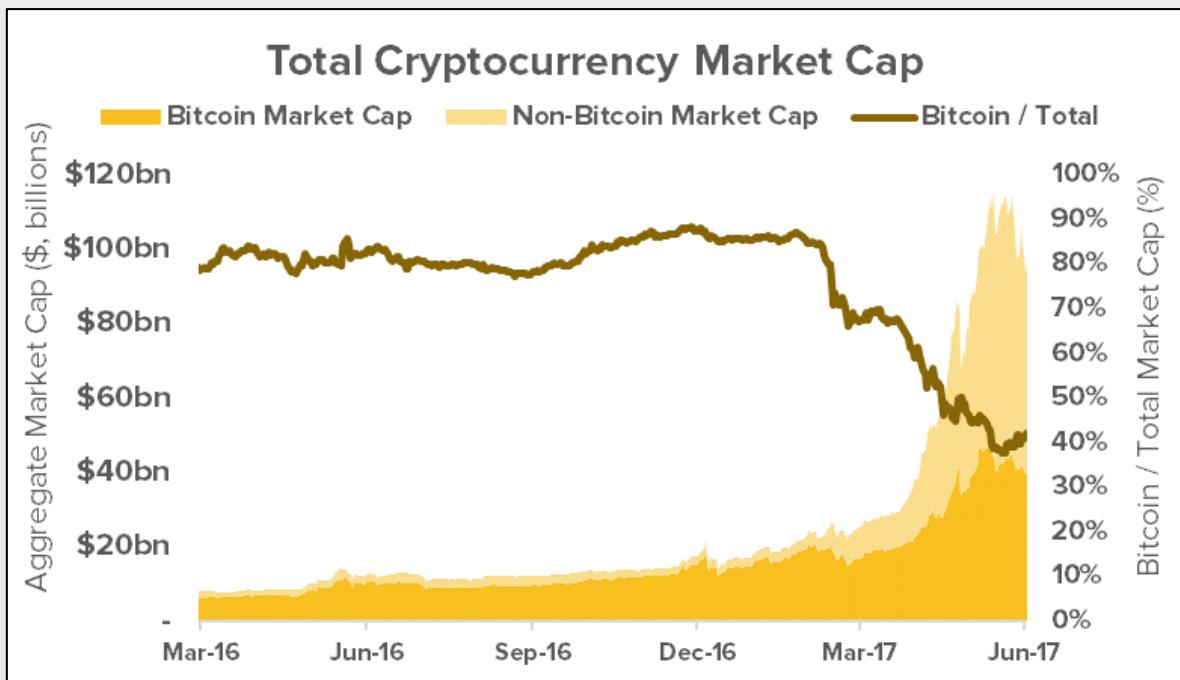
Aggregate Cryptocurrency Market Cap Rallies 4x, Breaks \$100bn in Q2



For some context, the market cap of:

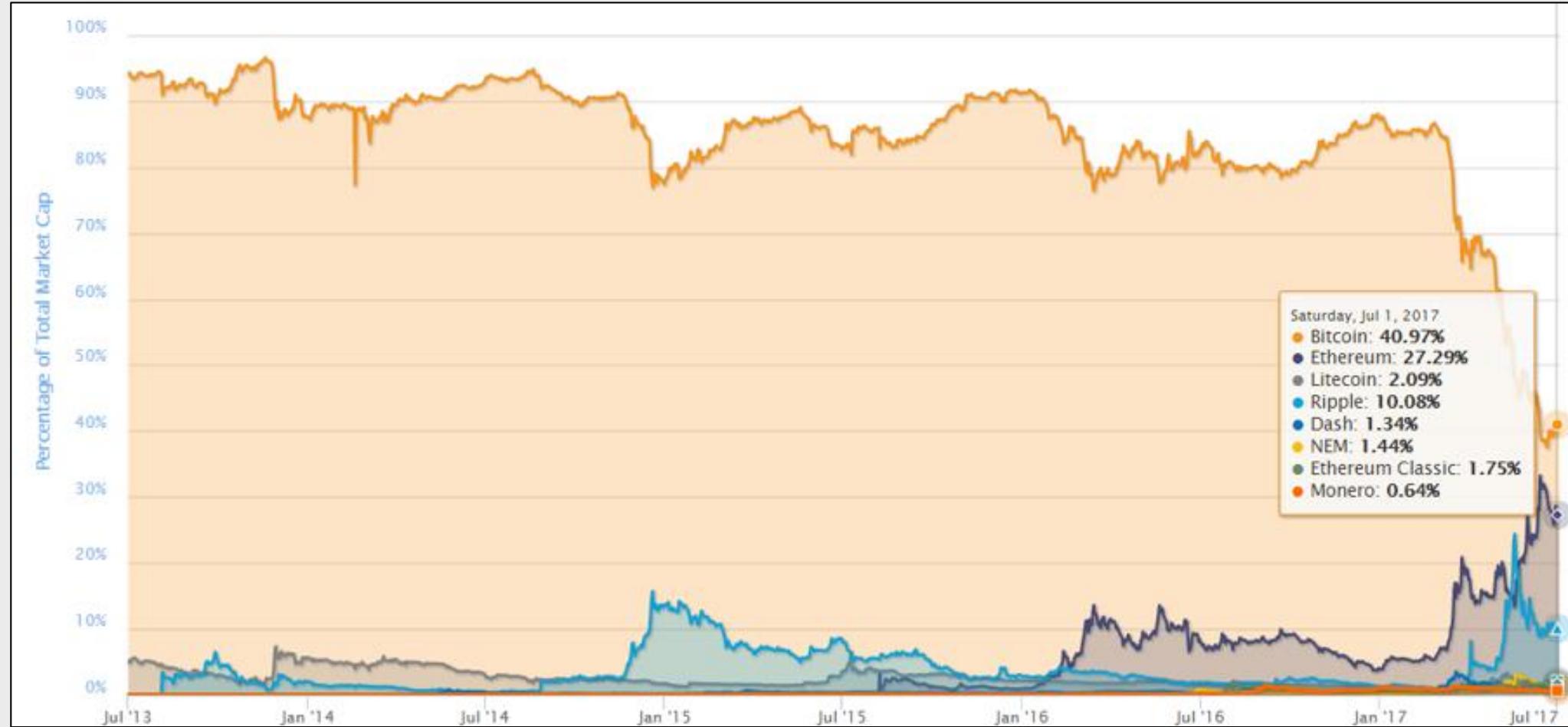
- Western Union = \$10 billion
- Ether = \$30 billion
- Bitcoin = \$40 billion
- All Cryptocurrencies = \$100 billion
- Visa = \$200 billion
- Gold = \$7 trillion

Bitcoin's Dominance Falls Under 40% as Total Market Rallies North of \$100bn





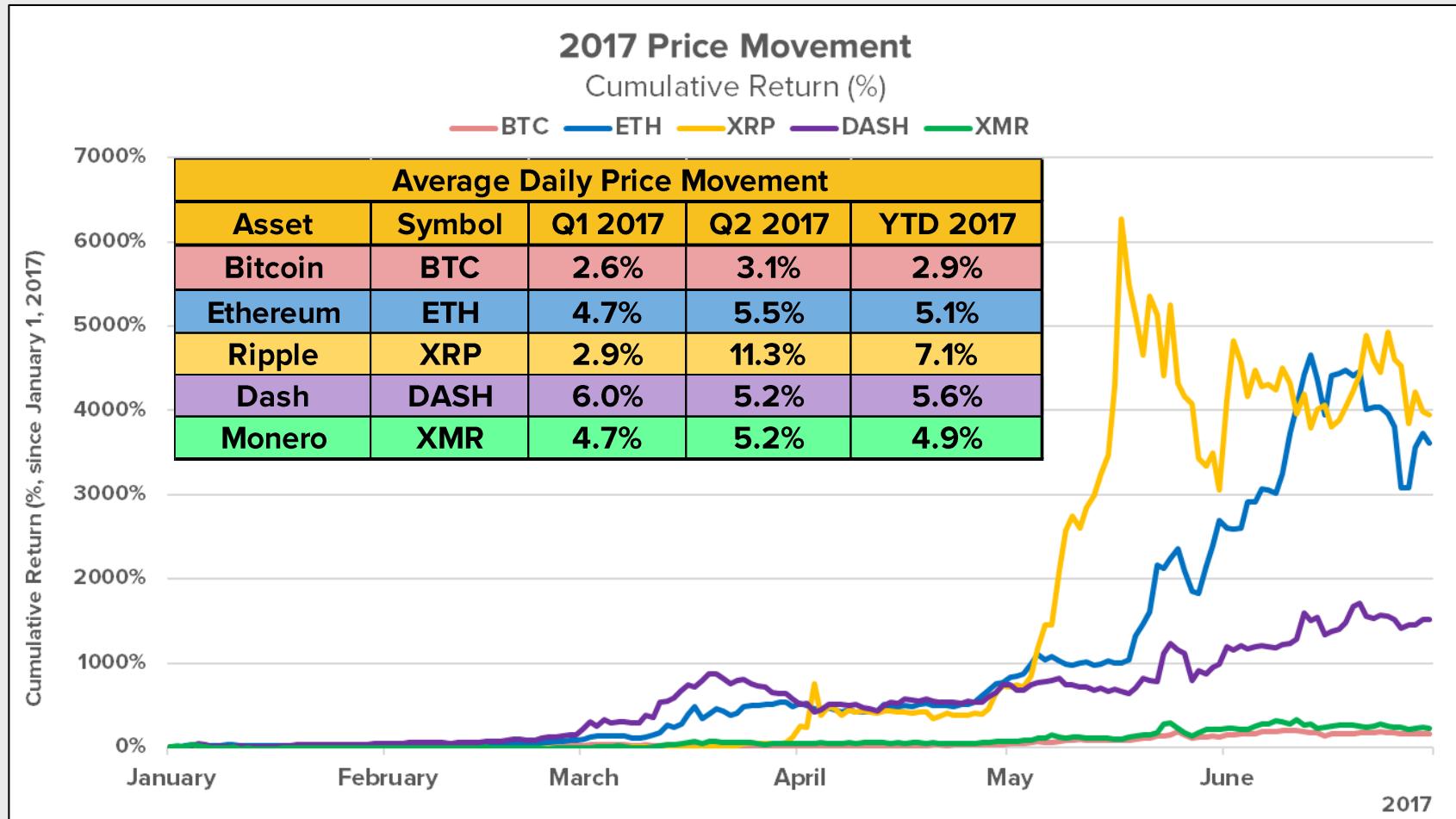
Q2 Ended With the Most Diverse Asset Class Composition in History



Data Source: [Coinmarketcap](#)



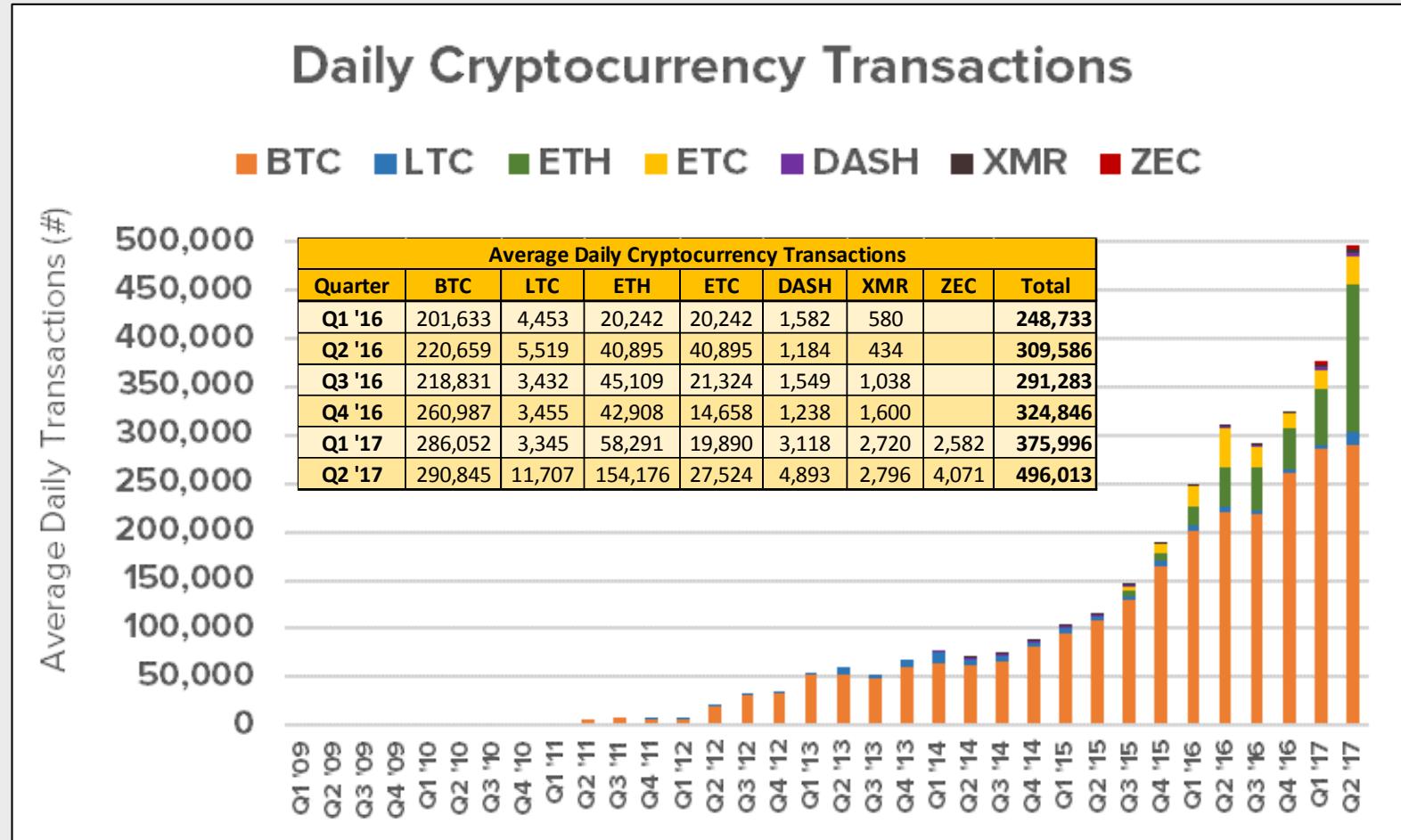
Major Asset Prices Rally North of 1000% Year to Date in May, Exceed 5% Average Daily Volatility



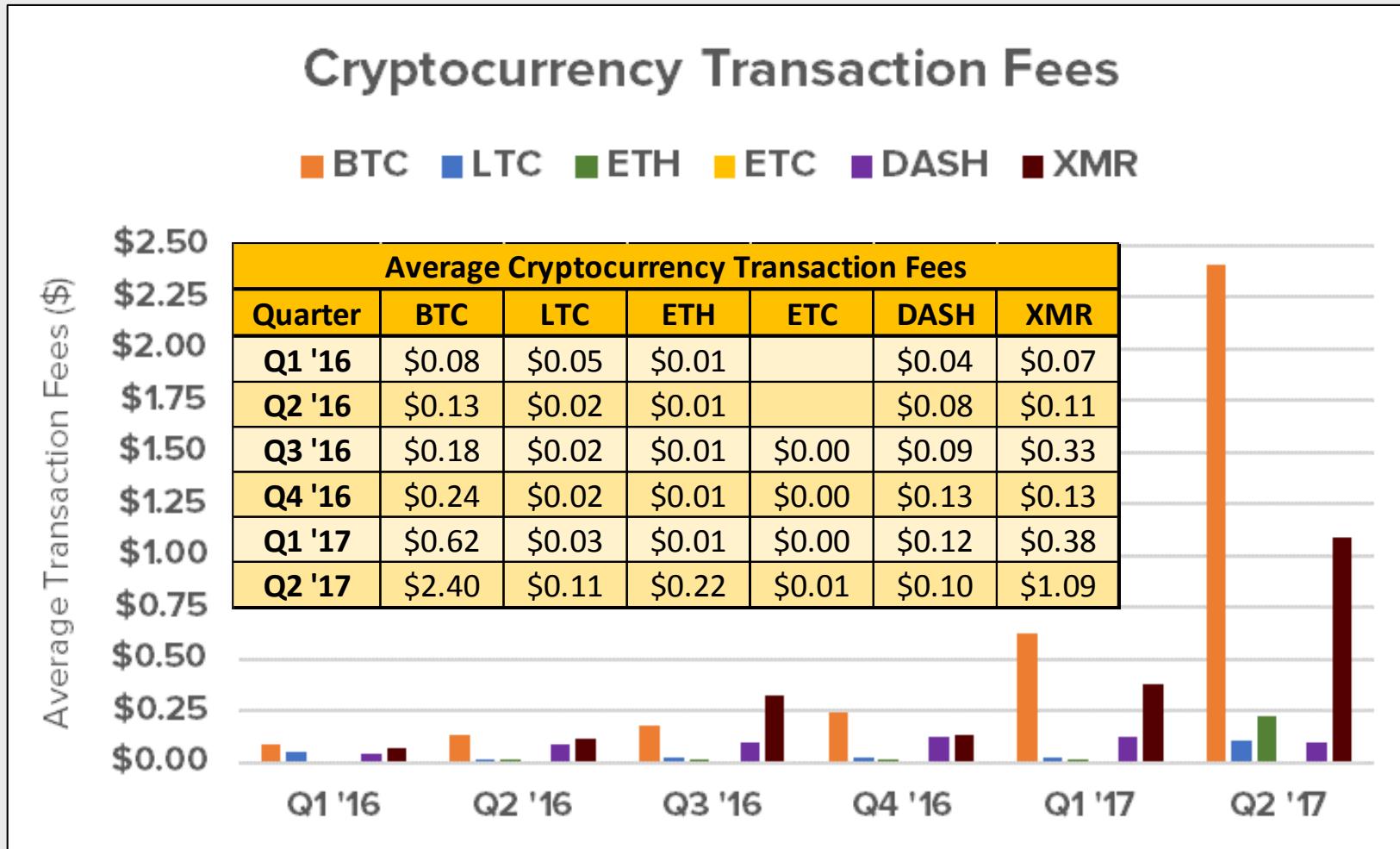
Data Source: [Coincap](#)

Notes: Average day over day price movement (absolute value)

Transactions on Major Cryptocurrency Blockchains Exceed Half a Million a Day



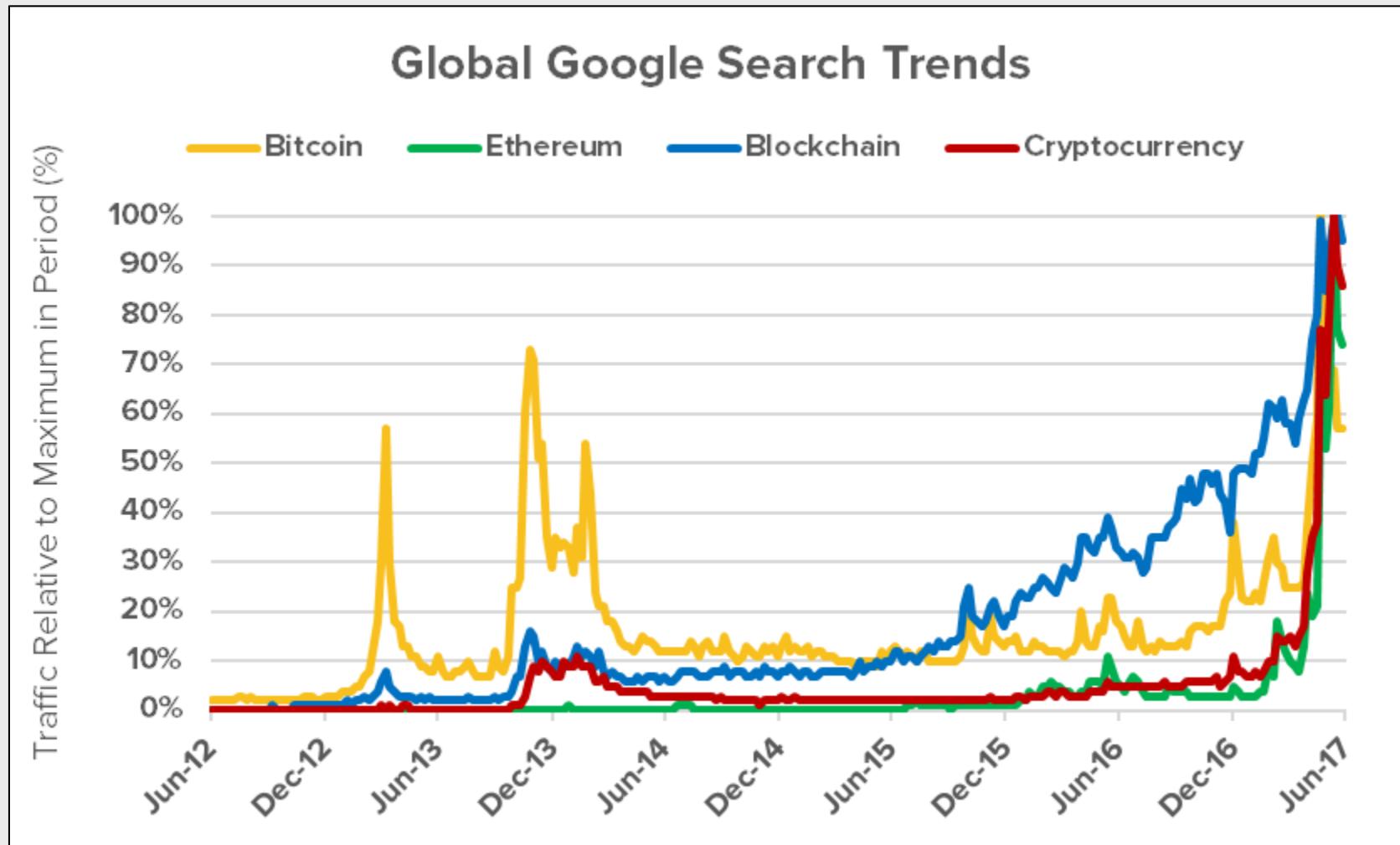
Average Transaction Fees Crossed Over \$1, Increased Significantly on Major Blockchain Protocols



Data Source: [BitInfocharts](#)

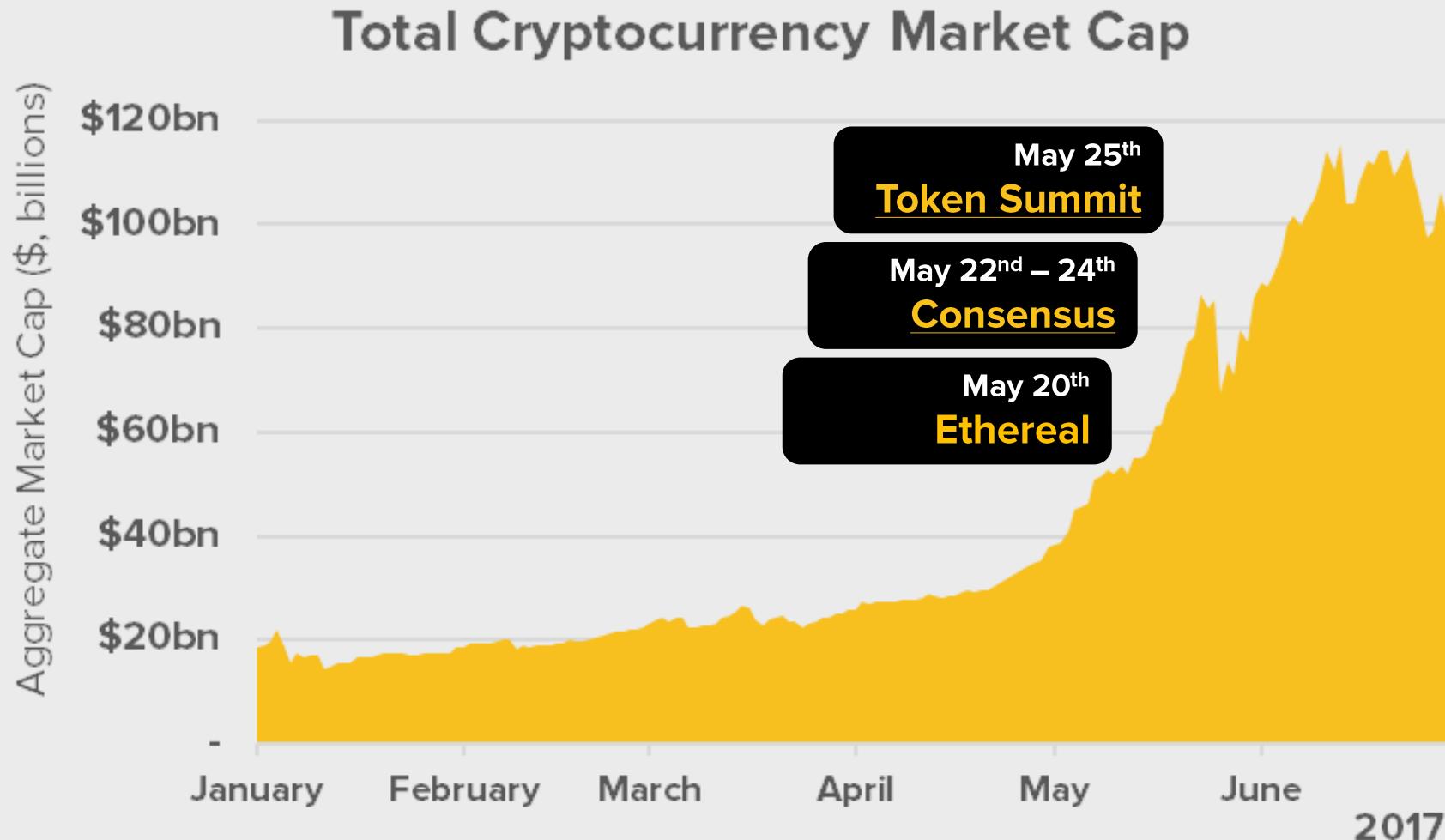


Nearly Every Blockchain Related Term Hit All-Time Global Google Search Interest



Data Source: [Google Trends](#)

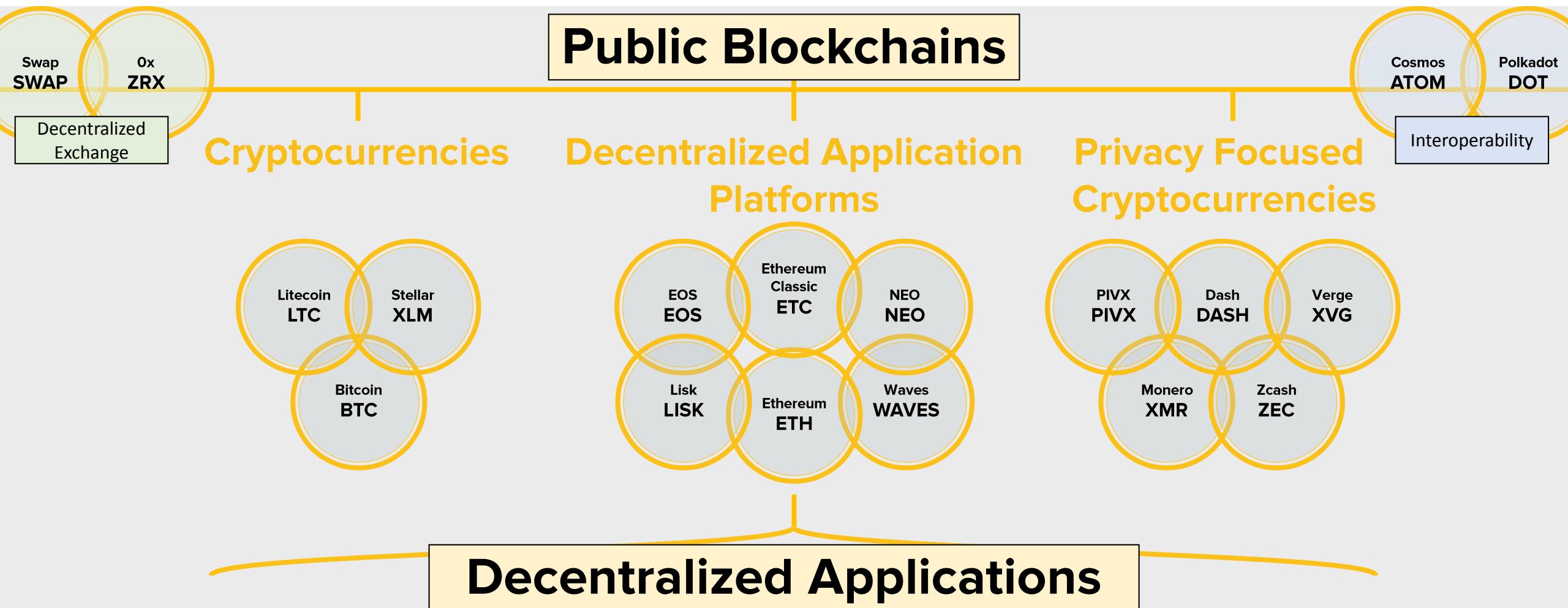
Major Industry Events Amplified Attention Around Token Price Rallies



Data Sources: [Ethereal](#), [Consensus](#), [Token Summit](#)



The Rise of New Projects and Growth of Existing Assets Has Made the Blockchain Ecosystem Easier to Bucket and Categorize



Notes: Just a subset and sample of public blockchain sectors and assets shown

Decentralized exchanges may work with just certain tokens (for example just ERC20) and interoperability protocols may extend to permissioned blockchain networks (not shown)



Commonly Quoted ‘Market Cap’ Can Be Extremely Misleading, Inconsistent in Treatment of Supply

Name	Market Cap
Bitcoin	\$69,037,072,747
Ethereum	\$27,450,249,096
Ripple	\$6,123,549,893
Bitcoin Cash	\$4,868,218,407
IOTA	\$2,584,334,989
NEO	\$2,426,460,000
Litecoin	\$2,272,456,277
NEM	\$2,245,266,000
Dash	\$1,509,166,681
Ethereum Classic	\$1,293,721,082

Market Cap = Price * Supply

Pretty simple formula. Unfortunately, ‘supply’ is not as straightforward as you may think.

Cryptocurrencies, like most assets, are unique from one another. The amount of tokens and how they are created and distributed vary wildly.

Name	Market Cap	Price	Circulating Supply
Bitcoin	\$66,221,001,712	\$4012.16	16,505,075 BTC

Bitcoin was created with the start of open mining. ≈16.5 million BTC has been mined out of the 21 million that will ever be mined (≈79%).

Name	Market Cap	Price	Circulating Supply
Ethereum	\$27,876,530,836	\$296.63	93,976,182 ETH

Ether was created with a crowdsale before the start of open mining. ≈60 million ETH (≈83%) was sold to the public and ≈12 million ETH was created for the Ethereum Foundation (≈17%). Since, ≈22 million ETH has been mined out of the currently known amount that will ever be mined.

Name	Market Cap	Price	Circulating Supply
Zcash	\$414,555,956	\$212.12	1,954,319 ZEC

Zcash was created with the start of open mining after the Zcash Electric Coin Company received investment funding in exchange for corporate ownership and a portion of future block rewards. ≈2 million ZEC has been mined out of the 21 million that will ever be mined (≈10%).

Name	Market Cap	Price	Circulating Supply
Ripple	\$6,492,910,554	\$0.169295	38,352,642,160 XRP *

Ripple XRP was created by allocating 100 billion XRP to Ripple Labs (80%) and the 3 founders (20% total). ≈38 billion XRP has been sold and distributed to the public since. No additional XRP will ever be mined or created.

Name	Market Cap	Price	Circulating Supply
Augur	\$228,949,600	\$20.81	11,000,000 REP *

Augur Reputation was created with a crowdsale. 8.8 million REP (80%) was sold to the public and 2.2 million REP (20%) was created for the Forecast Foundation and founders. No additional REP will ever be mined or created.

Name	Market Cap	Price	Circulating Supply
Golem	\$236,827,665	\$0.284296	833,032,000 GNT *

Golem Network Tokens were created with a crowdsale. 820 million GNT (82%) was sold to the public and 180 million GNT (18%) was created for the Golem Factory, team members, and early contributors. No additional GNT will ever be mined or created.

Name	Market Cap	Price	Circulating Supply
Gnosis	\$208,847,040	\$189.07	1,104,590 GNO *

Gnosis GNO was created with a crowdsale. ≈0.4 million GNO (≈4%) was sold to the public and ≈9.6 million was created for Gnosis (≈96%). No additional GNO will ever be mined or created.

Data Source: [Coinmarketcap](#)



New CoinDesk ICO Website Tool: Market Center (Teaser)

Markets Center

Asset	Symbol	Price	24h Price Change	24h Trading Volume	Current Supply	Current Valuation
Bitcoin	BTC	\$3543.92	+3.28%	\$1,938,980,000	16,501,387	\$58,479,759,624
Ethereum	ETH	\$282.23	-3.8%	\$1,040,860,000	94,016,806	\$26,534,766,081
Ripple	XRP	\$0.16	-4.64%	\$90,566,100	38,343,841,883	\$5,999,699,333
Bitcoin Cash	BCH	\$294.13	-0.57%	\$135,073,000	16,492,350	\$4,851,015,322
Litecoin	LTC	\$42.45	-5.39%	\$203,084,000	52,468,582	\$2,227,744,960
NEO	NEO	\$41.57	-10.01%	\$249,684,000	50,000,000	\$2,078,678,489
Dash	DASH	\$204.69	+3.37%	\$37,512,600	7,493,617	\$1,533,942,351
Ethereum Classic	ETC	\$13.36	-3.38%	\$52,052,600	94,548,829	\$1,263,489,919
Qtum	QTUM	\$14.41	-1.67%	\$65,358,500	59,000,000	\$850,360,178
Monero	XMR	\$47.74	-0.97%	\$15,354,100	14,939,179	\$713,301,091
OmiseGo	OMG	\$6.59	+1.21%	\$78,559,200	98,312,024	\$648,849,527
Stratis	STRAT	\$6.22	+5.19%	\$29,204,100	98,504,194	\$613,673,592
Waves	WAVES	\$4.99	+5.16%	\$4,809,460	100,000,000	\$499,304,302
EOS	EOS	\$1.64	+3.8%	\$62,113,800	285,397,683	\$470,804,164
Zcash	ZEC	\$204.91	+1.22%	\$21,154,300	1,967,294	\$403,130,751
BitShares	BTS	\$0.14	-1.11%	\$59,289,700	2,597,880,000	\$376,840,061
Tether	USDT	\$0.99	+0.05%	\$200,861,000	319,501,302	\$319,469,352
Status	SNT	\$0.059	+0%	\$19,987,200	3,470,483,788	\$207,615,952
Nxt	NXT	\$0.10	+3.87%	\$14,314,800	998,999,983	\$109,073,497

Coming soon!

New Individual Asset Pages

Ripple (XRP) Price





2A

BITCOIN



Q2 2017 Bitcoin Summary

Bitcoin breaks \$3,000:

- Over doubles in price, ranges nearly \$2,000, moving into completely new territory

Transaction fees hit all-time high over \$5:

- Average transaction fees skyrocket as block size limit is consistently reached

Bitcoin drops below 40% of market value:

- Bitcoin more than doubles in price in Q2 but underperforms other large blockchain assets

Global trading volume grows:

- JPY, USD dominate overall trading volume after Q1 CNY drop from PBoC investigations

All attention turns to scaling proposals:

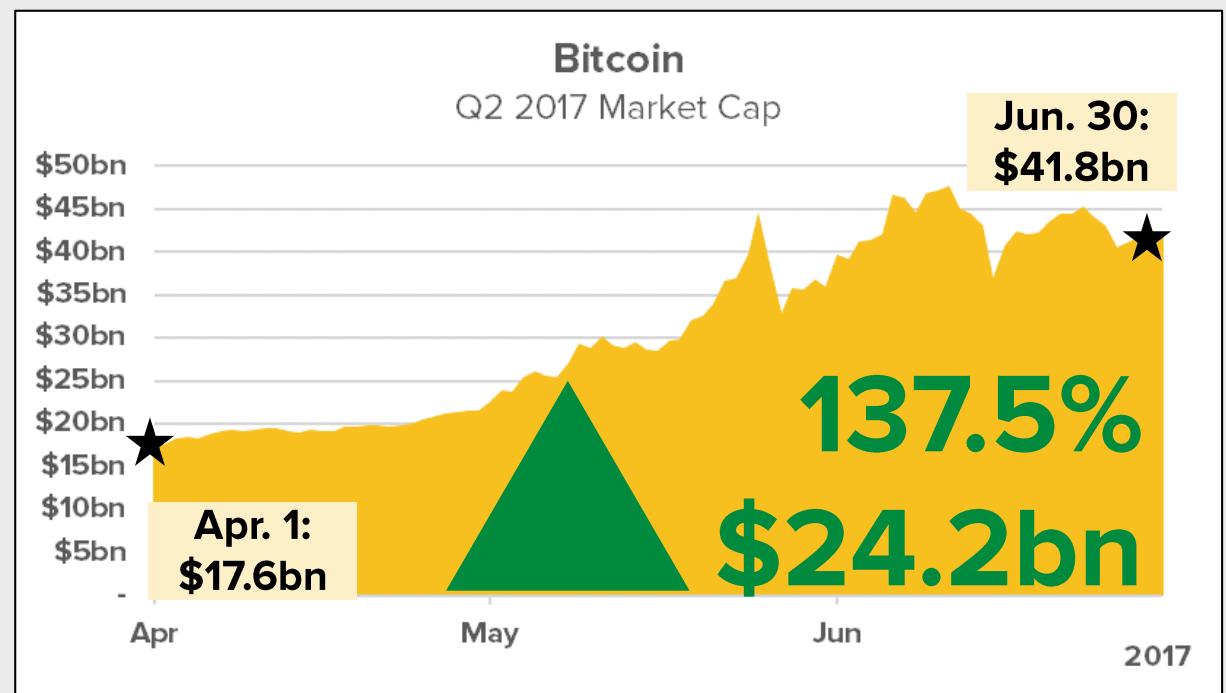
- Numerous proposals, BIPs, and agreements are quickly made as pressure rises

SegWit focus continues:

- Litecoin activates SegWit, Segwit2x roadmap continues with major support

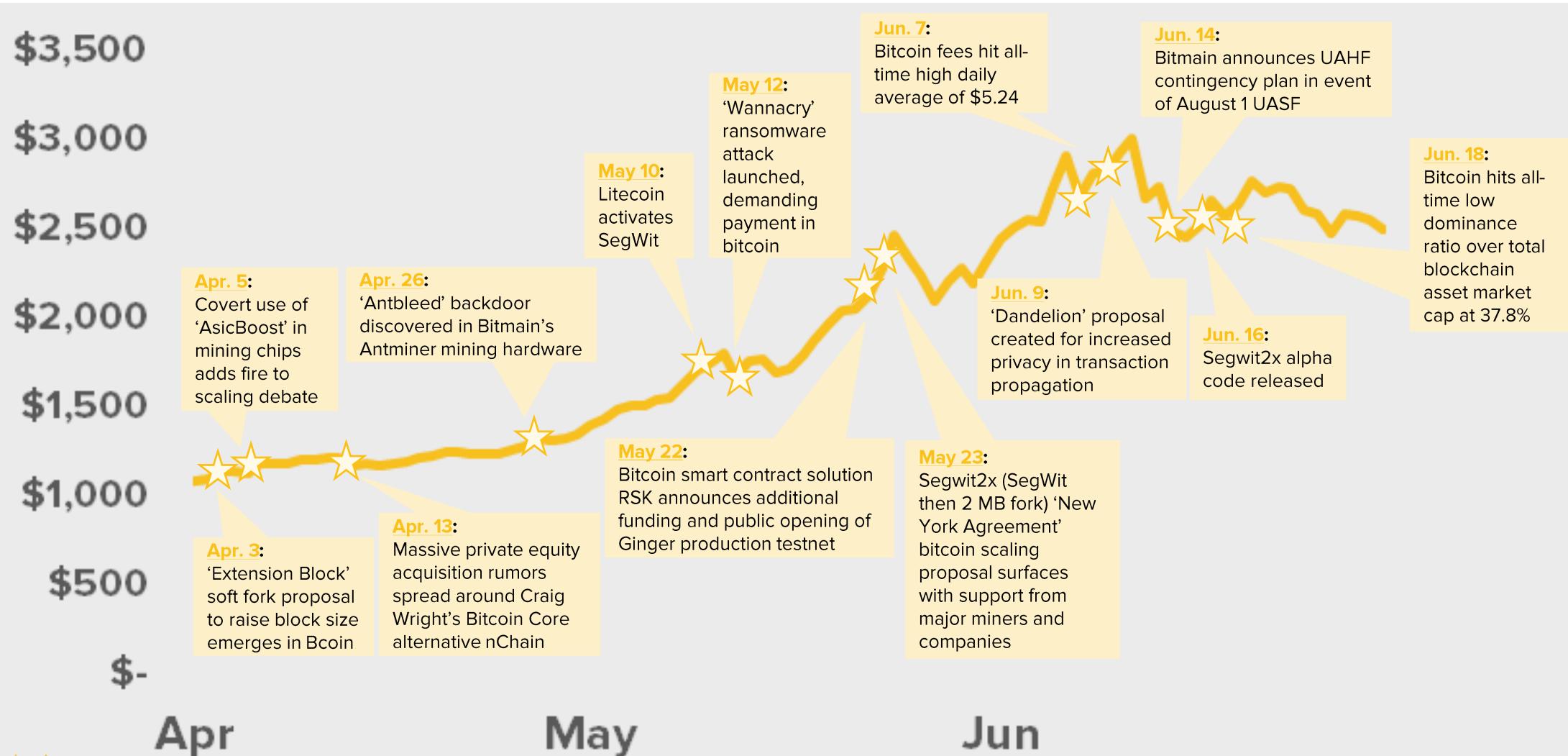


Bitcoin More Than Doubles in Market Cap, Setting All-Time High North of \$40bn



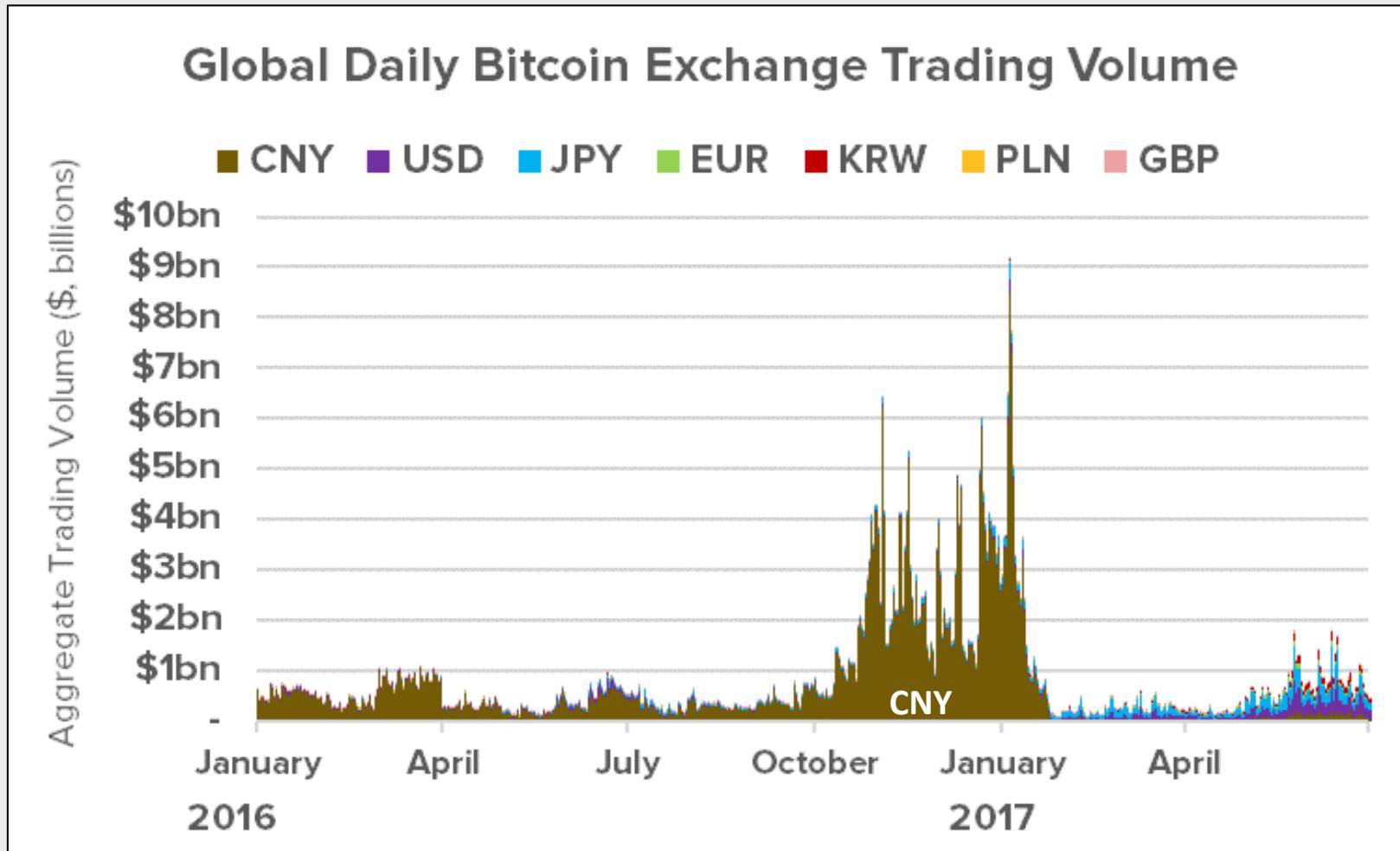
Data Source: [Coincap](#)

Bitcoin: Key Market Events



Data Sources: [CoinDesk](#), [bitcoin price page](#)

Global Trading Volumes Normalize After Early Q1 Peoples Bank of China Actions on Domestic Exchanges

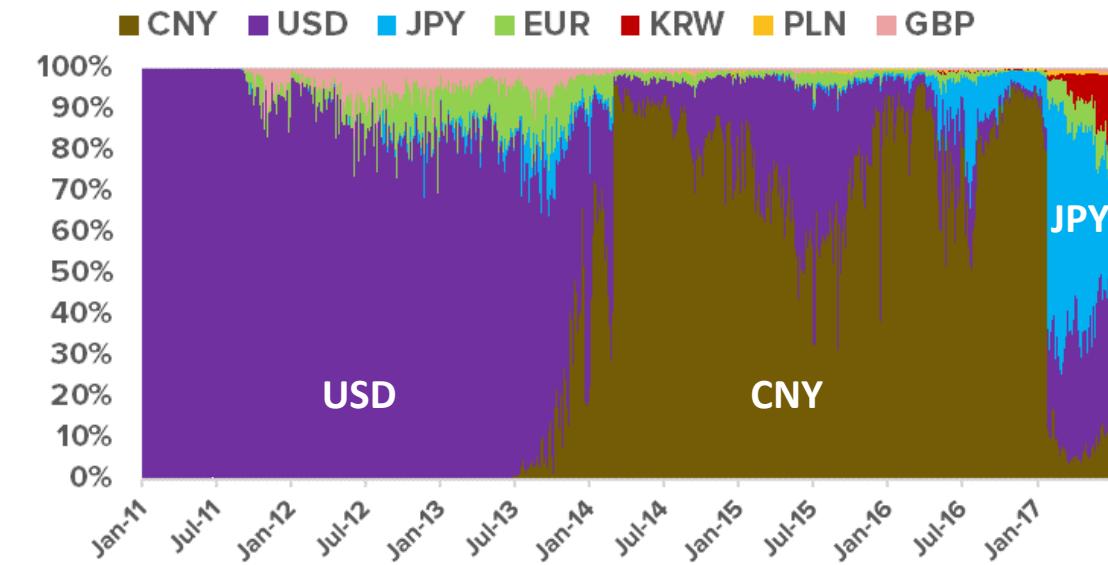


Data Source: [Cryptocompare](#)

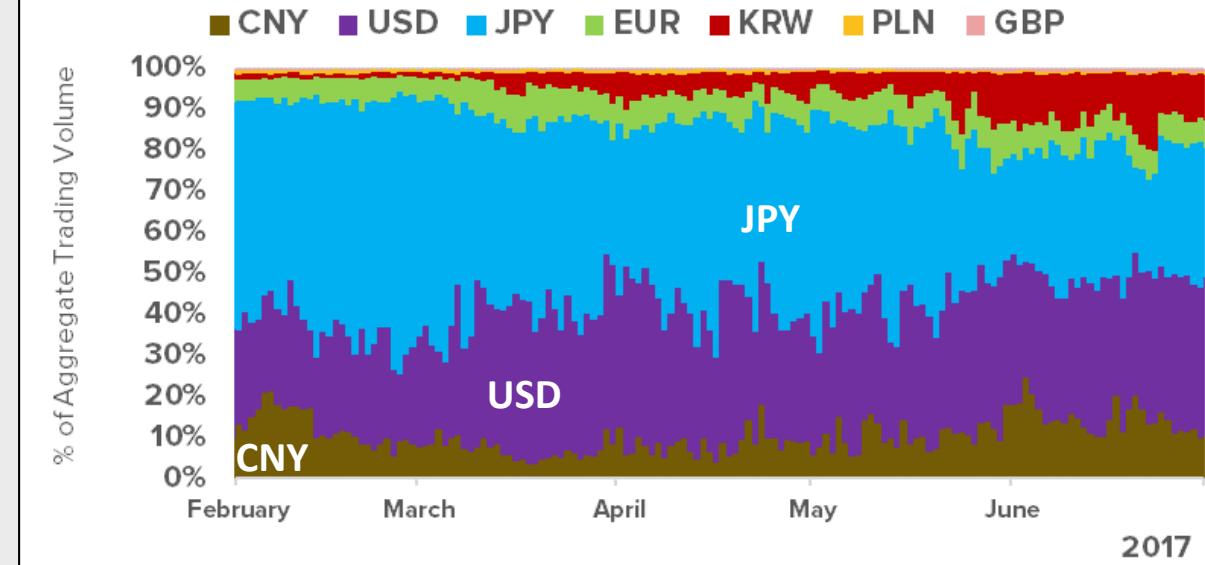


Global Trading Volume Now Appears More Distributed Than Ever Before

Global Daily Bitcoin Exchange Trading Volume



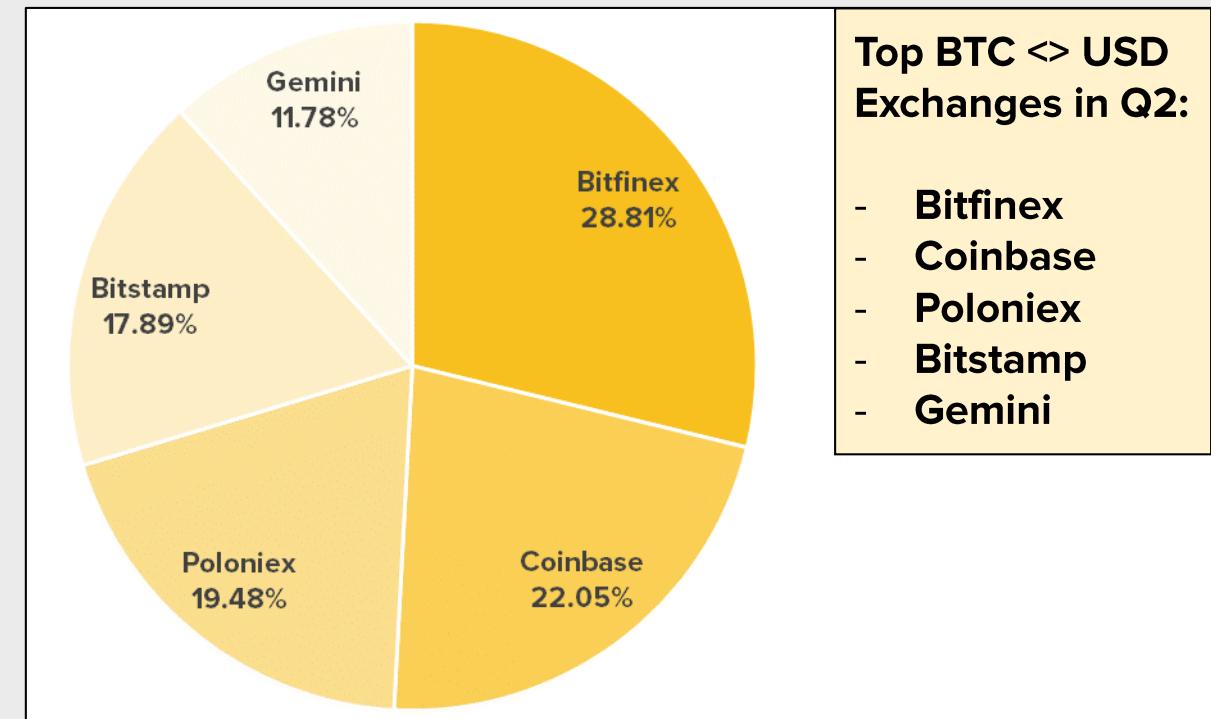
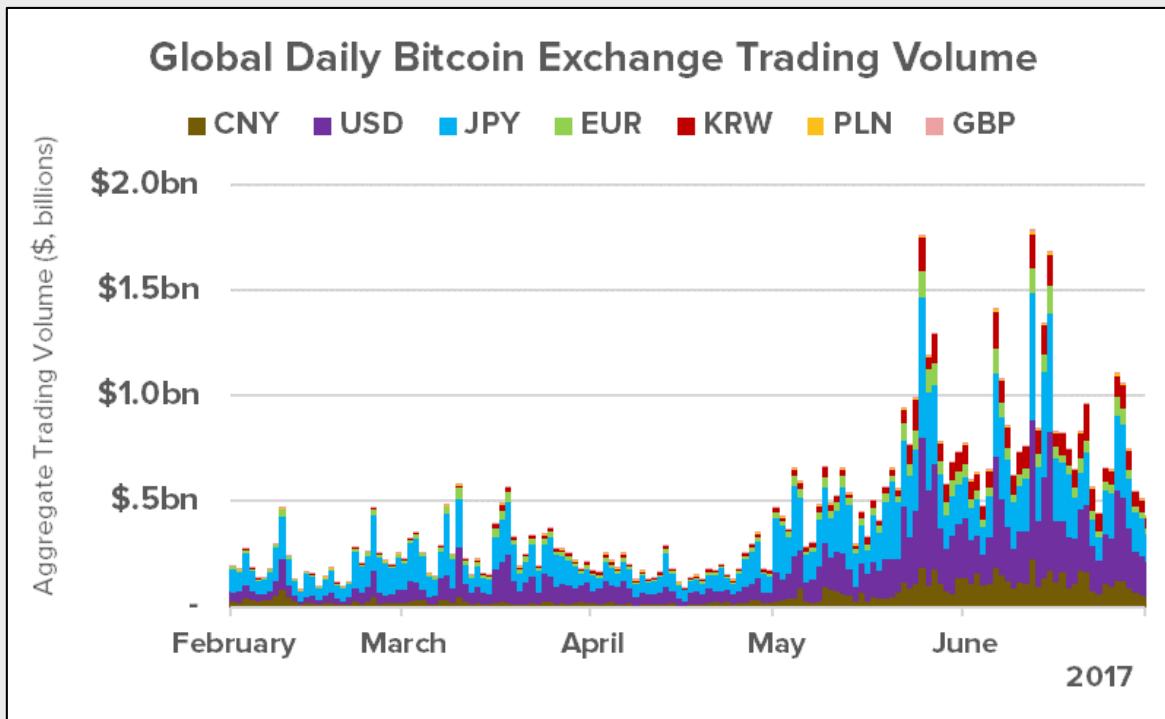
Global Daily Bitcoin Exchange Trading Volume



Data Source: [Cryptocompare](#)



Exchange Trading Volume Increased Around the Globe in Q2, Bitfinex, Coinbase Lead USD Based Trading

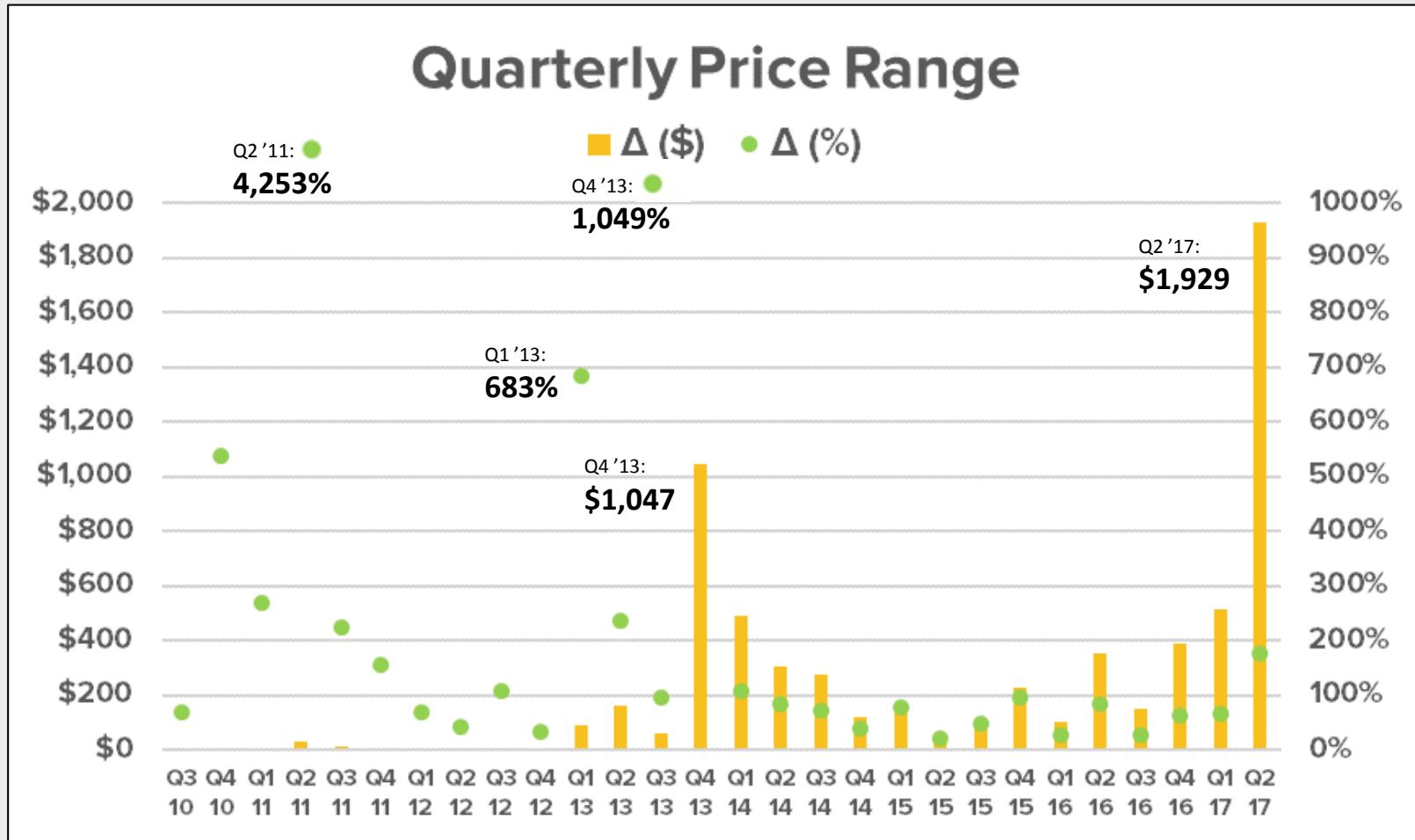


Data Source: [Cryptocompare](#)



Bitcoin Sees Price Rallies From \$1,000 to \$3,000

Marking the Largest Quarterly \$ Gain Ever and Largest % Gain Since 2013

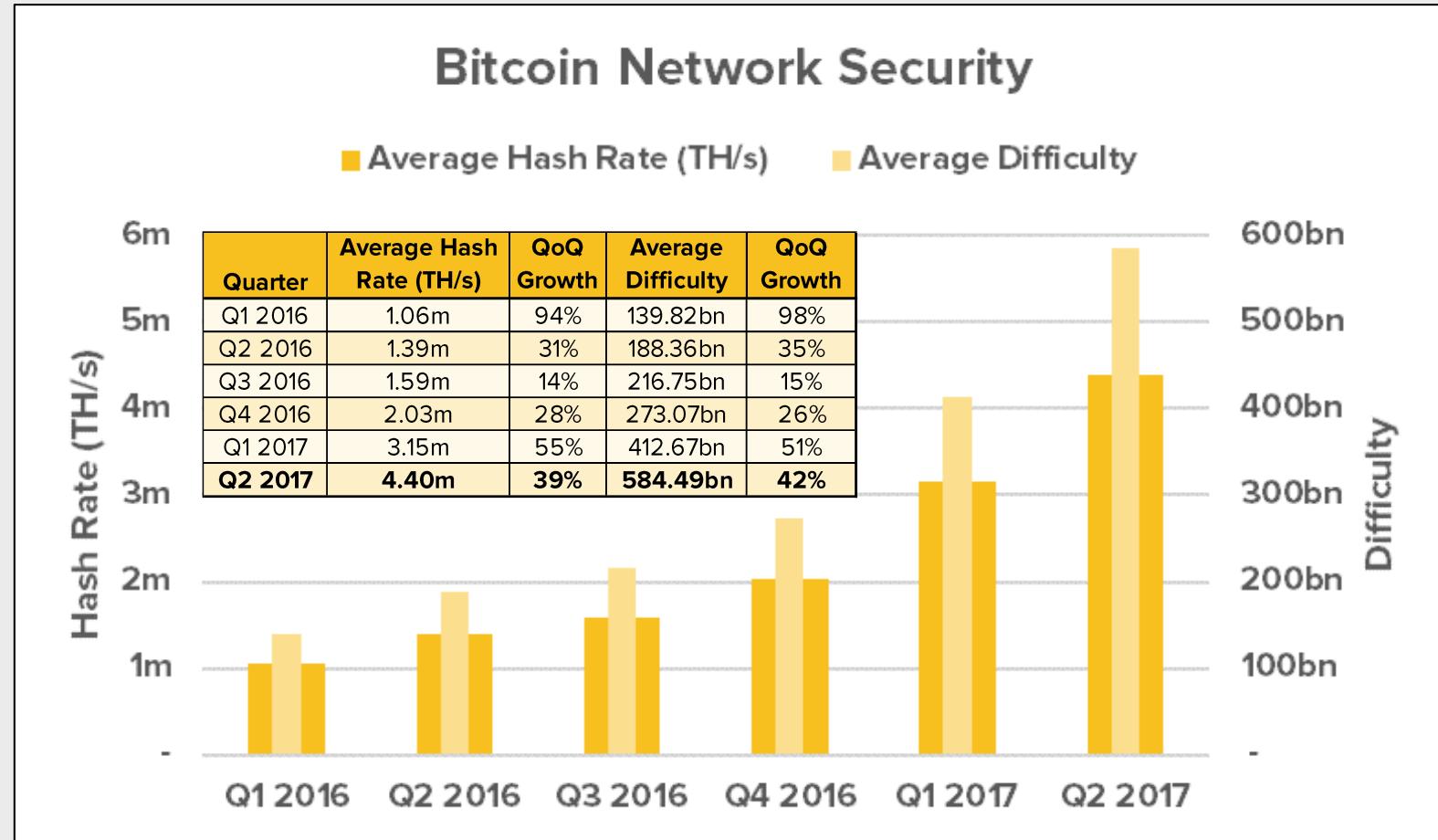


Data Source: [CoinDesk bitcoin price page](#)



Hash Rate

Hash Rate and Mining Difficulty Grow 40% to All-Time High



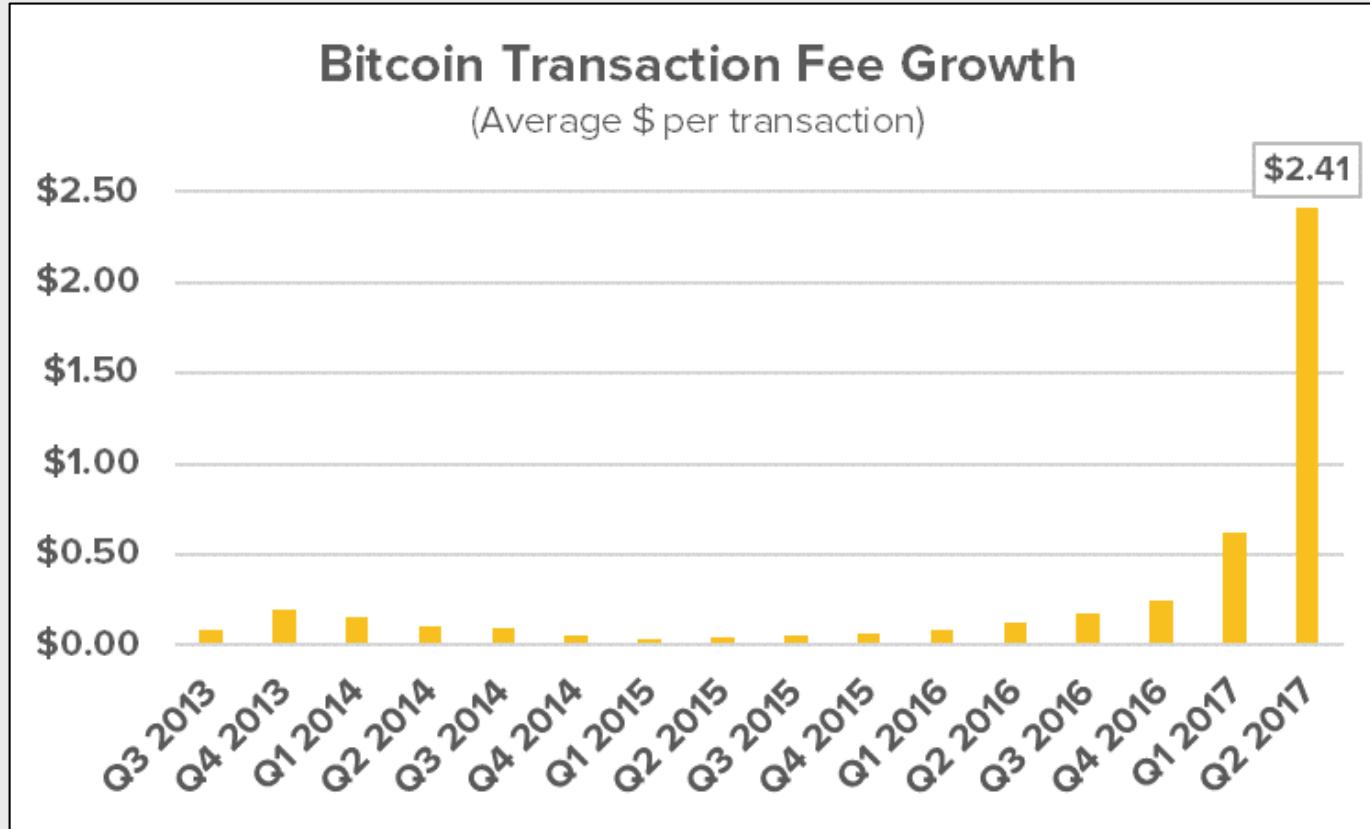
Data Source: [Blockchain](#)

Notes: Daily data. 'TH/s' is the estimated number of tera hashes (trillions of hashes) per second, 'difficulty' is a relative measure of how difficult it is to find a new block, which is adjusted periodically as a function of how much hashing power has been deployed. 'QoQ' means 'quarter over quarter' (Q2 2017 vs Q1 2017).



Fees

Transaction Fees Continue to Skyrocket,
Over 10x More Expensive to Send Bitcoin Than 6 Months Prior



Quarter	Average Daily Bitcoin Transaction Fees	QoQ Change
Q3 2013	\$0.08	
Q4 2013	\$0.19	125.8%
Q1 2014	\$0.15	-19.6%
Q2 2014	\$0.10	-35.3%
Q3 2014	\$0.09	-4.9%
Q4 2014	\$0.06	-40.8%
Q1 2015	\$0.04	-32.8%
Q2 2015	\$0.04	2.9%
Q3 2015	\$0.06	42.8%
Q4 2015	\$0.06	12.4%
Q1 2016	\$0.08	36.4%
Q2 2016	\$0.13	51.9%
Q3 2016	\$0.18	36.5%
Q4 2016	\$0.24	37.9%
Q1 2017	\$0.62	156.4%
Q2 2017	\$2.41	288.5%

Data Source: [Blockchain](#)

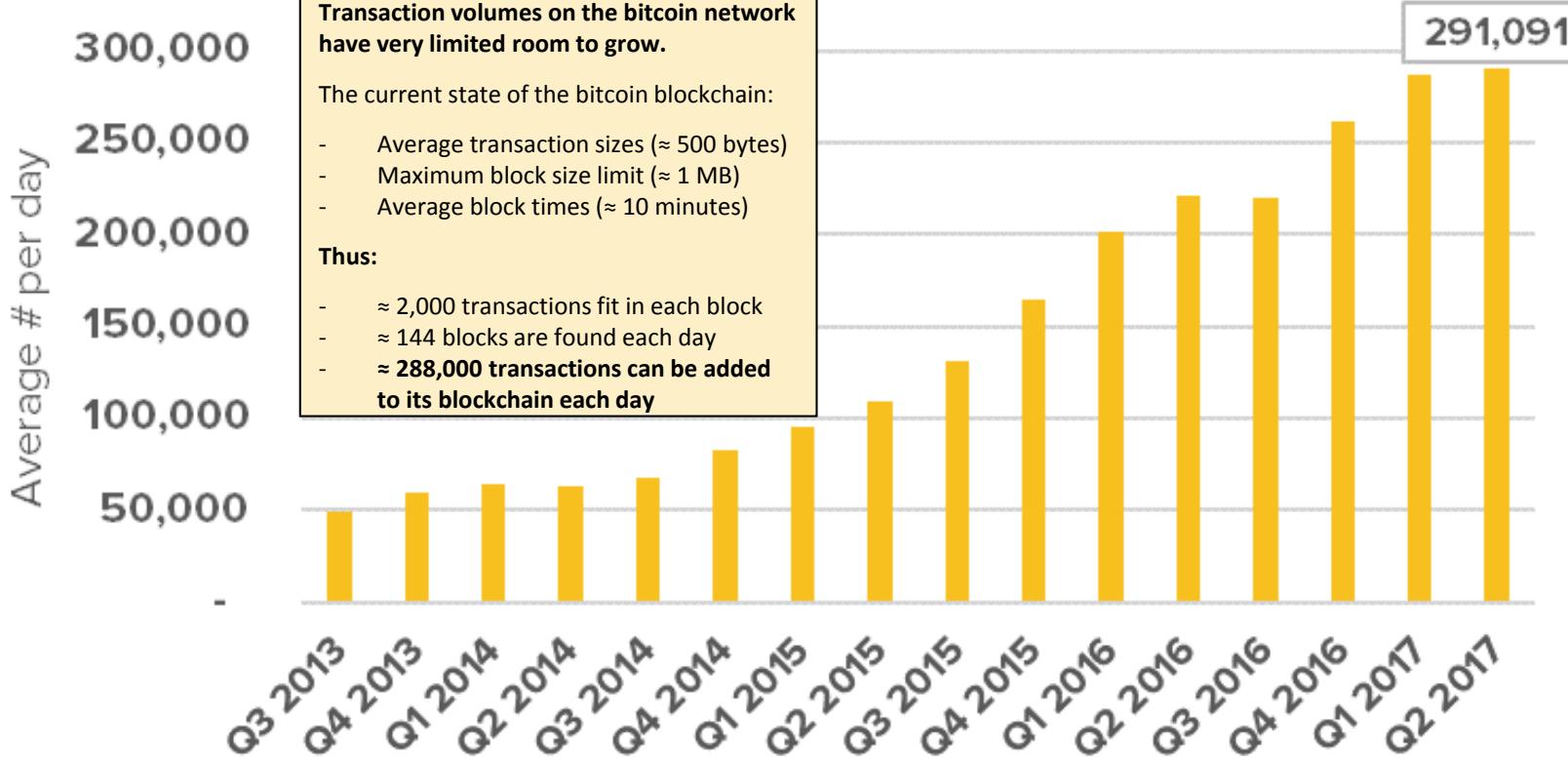
Notes: 'QoQ' means 'quarter over quarter' (Q2 2017 vs Q1 2017).

Transactions



Transaction Volumes Have Reached Current Limits

Bitcoin Transaction Growth



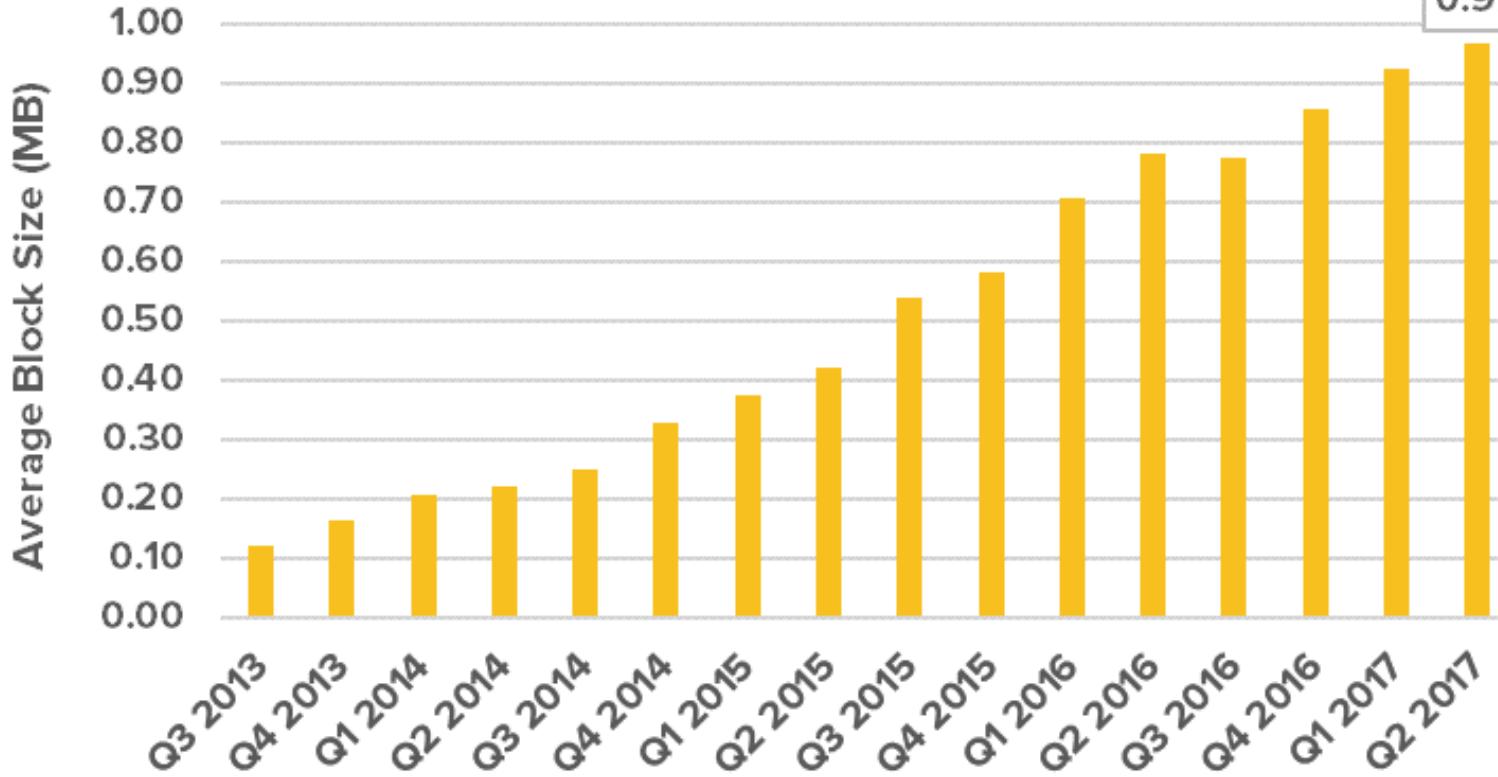
Quarter	Average Daily Bitcoin Transactions	QoQ Change
Q3 2013	49,042	
Q4 2013	60,280	22.9%
Q1 2014	63,991	6.2%
Q2 2014	62,639	-2.1%
Q3 2014	67,260	7.4%
Q4 2014	82,724	23.0%
Q1 2015	95,344	15.3%
Q2 2015	108,910	14.2%
Q3 2015	130,834	20.1%
Q4 2015	164,488	25.7%
Q1 2016	201,595	22.6%
Q2 2016	221,018	9.6%
Q3 2016	219,624	-0.6%
Q4 2016	261,710	19.2%
Q1 2017	287,098	9.7%
Q2 2017	291,091	1.4%

Data Source: [Blockchain](#)

Blocks

Blocks Have Similarly Reached a Capacity Limit

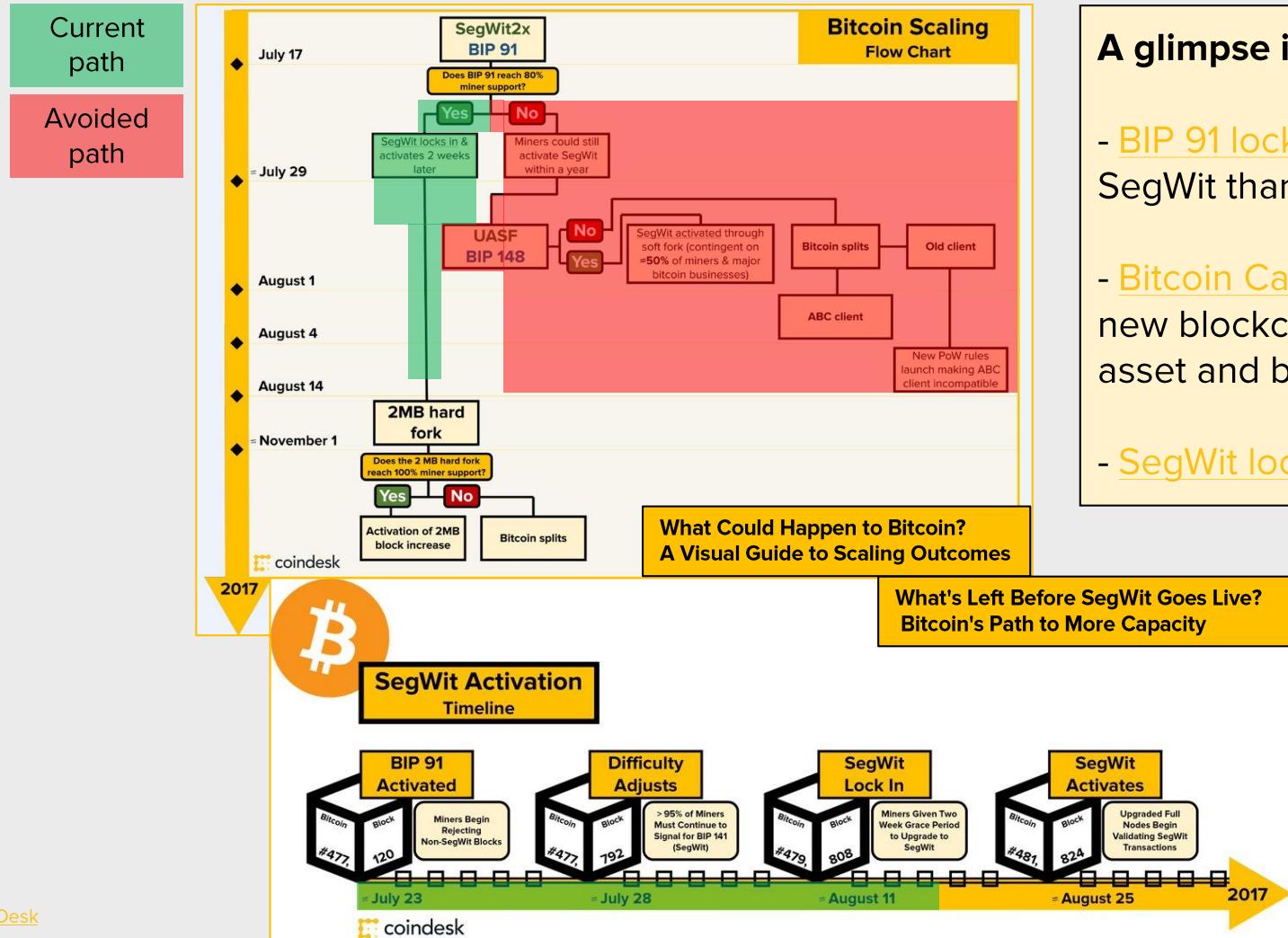
Bitcoin Block Size Growth



Quarter	Average Daily Bitcoin Block Sizes (MB)	QoQ Change
Q3 2013	0.12	
Q4 2013	0.16	32.9%
Q1 2014	0.21	25.3%
Q2 2014	0.22	7.8%
Q3 2014	0.25	12.5%
Q4 2014	0.33	31.6%
Q1 2015	0.38	14.4%
Q2 2015	0.42	11.5%
Q3 2015	0.54	28.4%
Q4 2015	0.58	7.7%
Q1 2016	0.71	21.6%
Q2 2016	0.78	10.8%
Q3 2016	0.78	-0.9%
Q4 2016	0.86	10.6%
Q1 2017	0.93	7.8%
Q2 2017	0.97	4.6%



Bitcoin's Scaling Roadmap: Proposals, Timelines, and Current Route



A glimpse into Q3:

- **BIP 91 locks-in**, moving more quickly towards SegWit than the August 1st USAF alternative
- **Bitcoin Cash forks** the network and creates a new blockchain with an entirely new traded asset and blocks above 1 MB
- **SegWit locks in** for bitcoin



2B

ETHEREUM



Q2 2017 Ethereum Summary

Ethereum markets explode:

- Ether rallies over \$300, \$30bn in total market cap, skyrocketing exchange volume

Proof of Stake transition:

- Hybrid models of proof of work and proof of stake for a period introduced

Dapp sectors grow:

- Verticals and industries of ethereum dapps and tokens materializes as additional supply enters the market

Transactions per day crosses bitcoin:

- Ether transaction volumes skyrocket, passing bitcoin in unique number per day for first time

Majority of ICOs and new tokens are ETH:

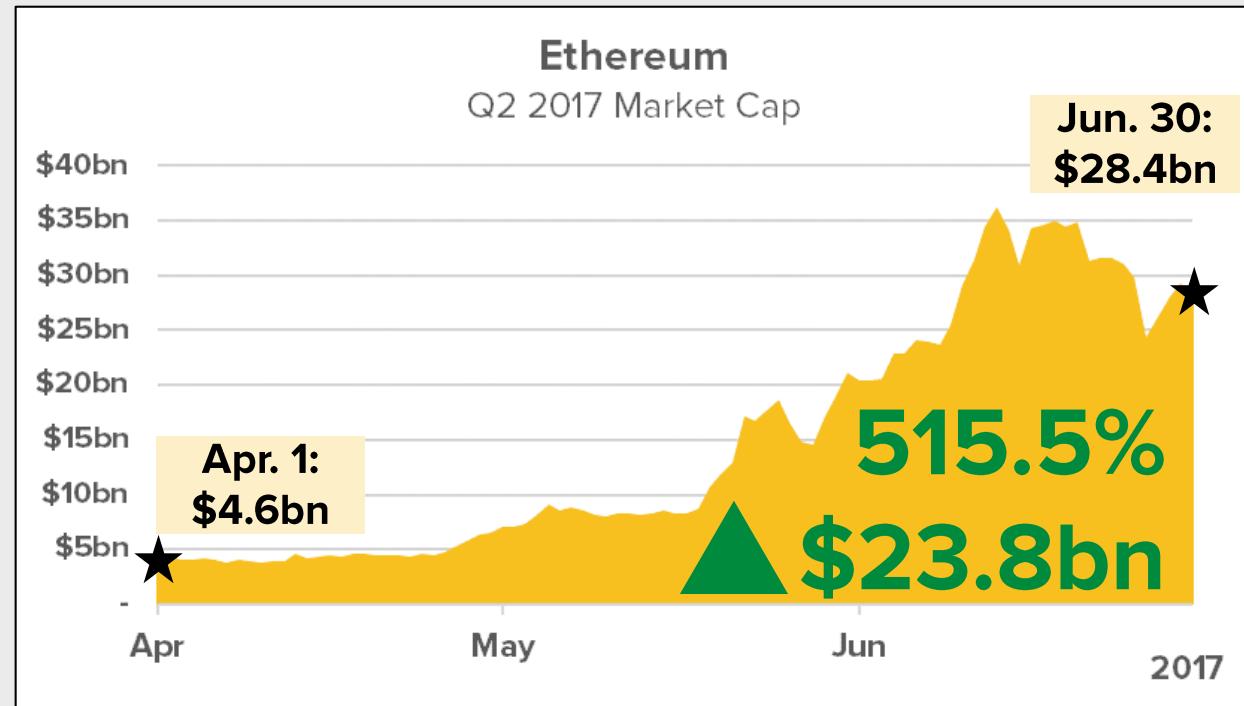
- Ethereum leads dapp platforms in terms of projects created and funded by far

ICOs highlight blockchain scaling issues:

- Bitcoin is not alone in facing network and protocol restrictions and frustrations



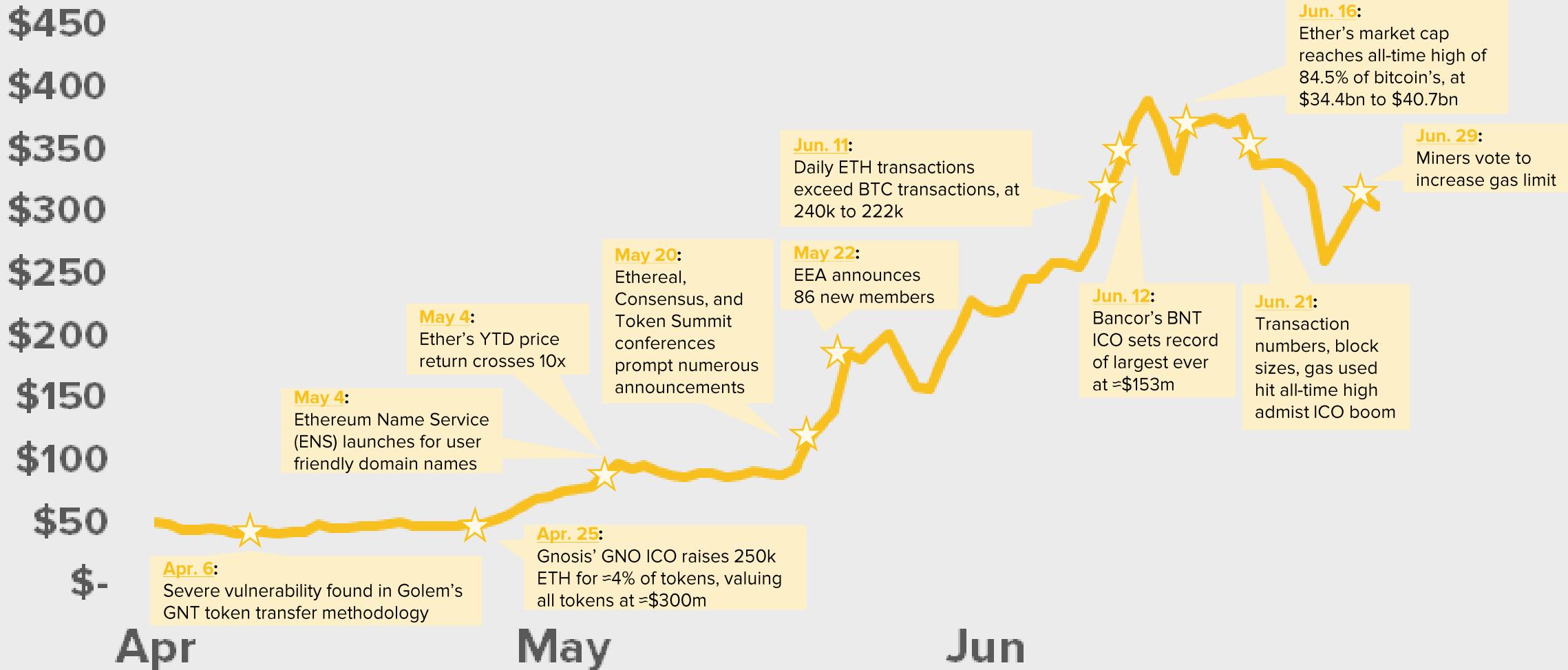
Ethereum Breaks Skyrockets to All-Time High, Exceeds \$35bn in Market Cap



Data Source: [Coincap](#)



Ethereum: Key Market Events

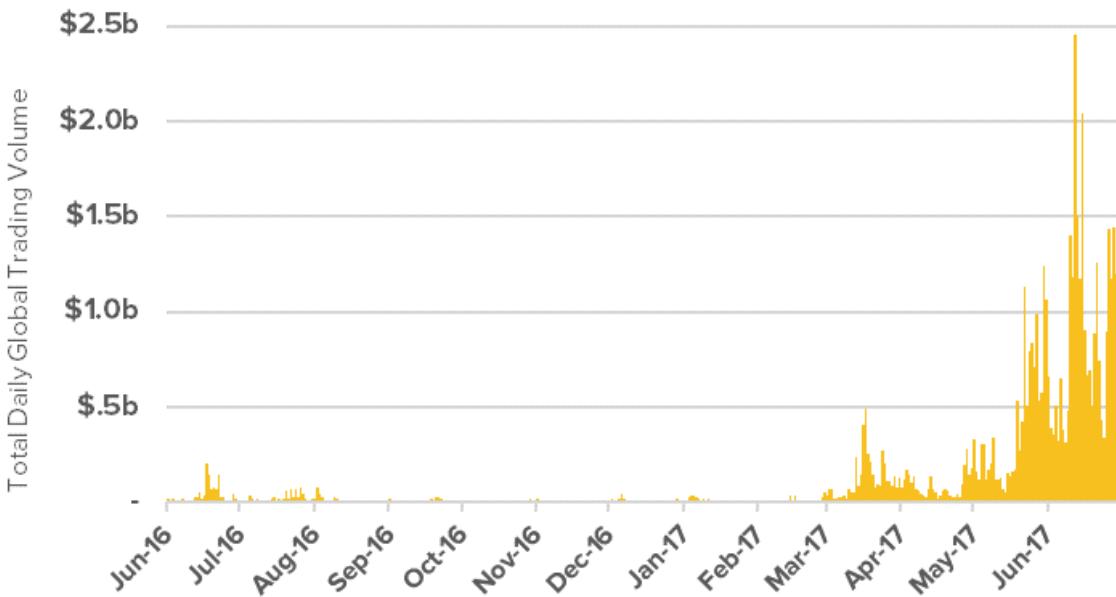


Data Sources: [CoinDesk](#), [CoinDesk ether price page](#)

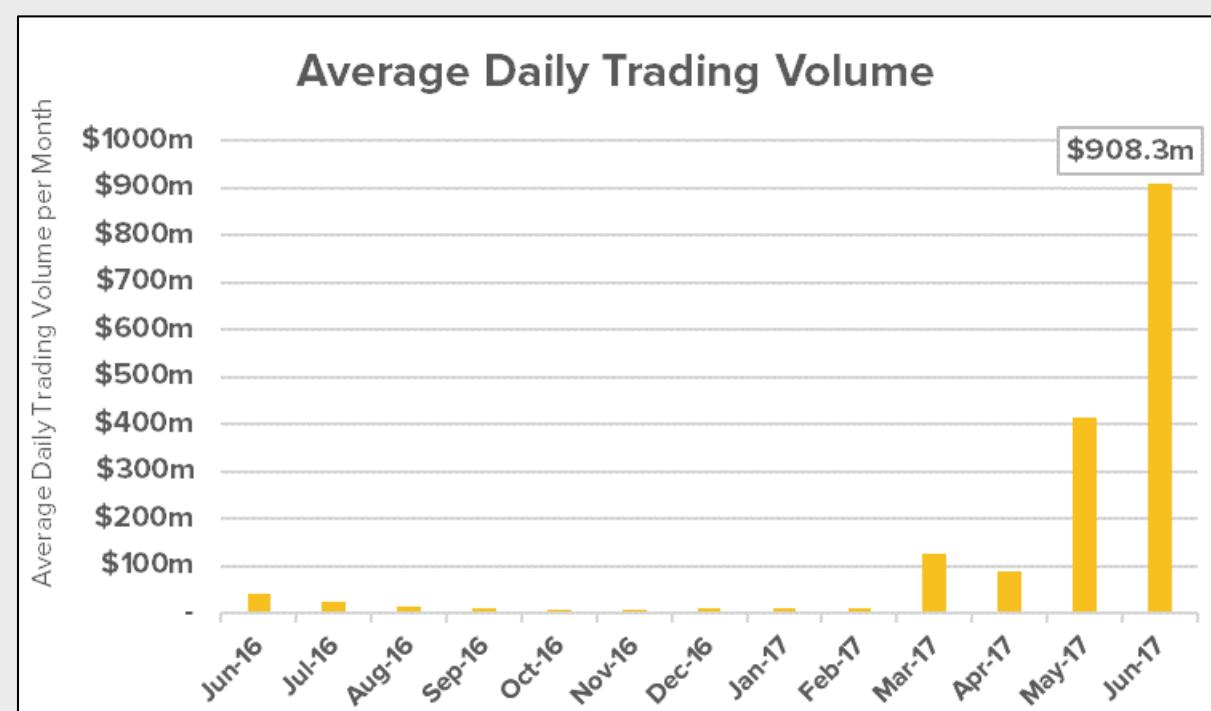


Ether Exchange Trading Volumes Have Grown Massively

Daily Global Ether Trading Volume



Average Daily Trading Volume

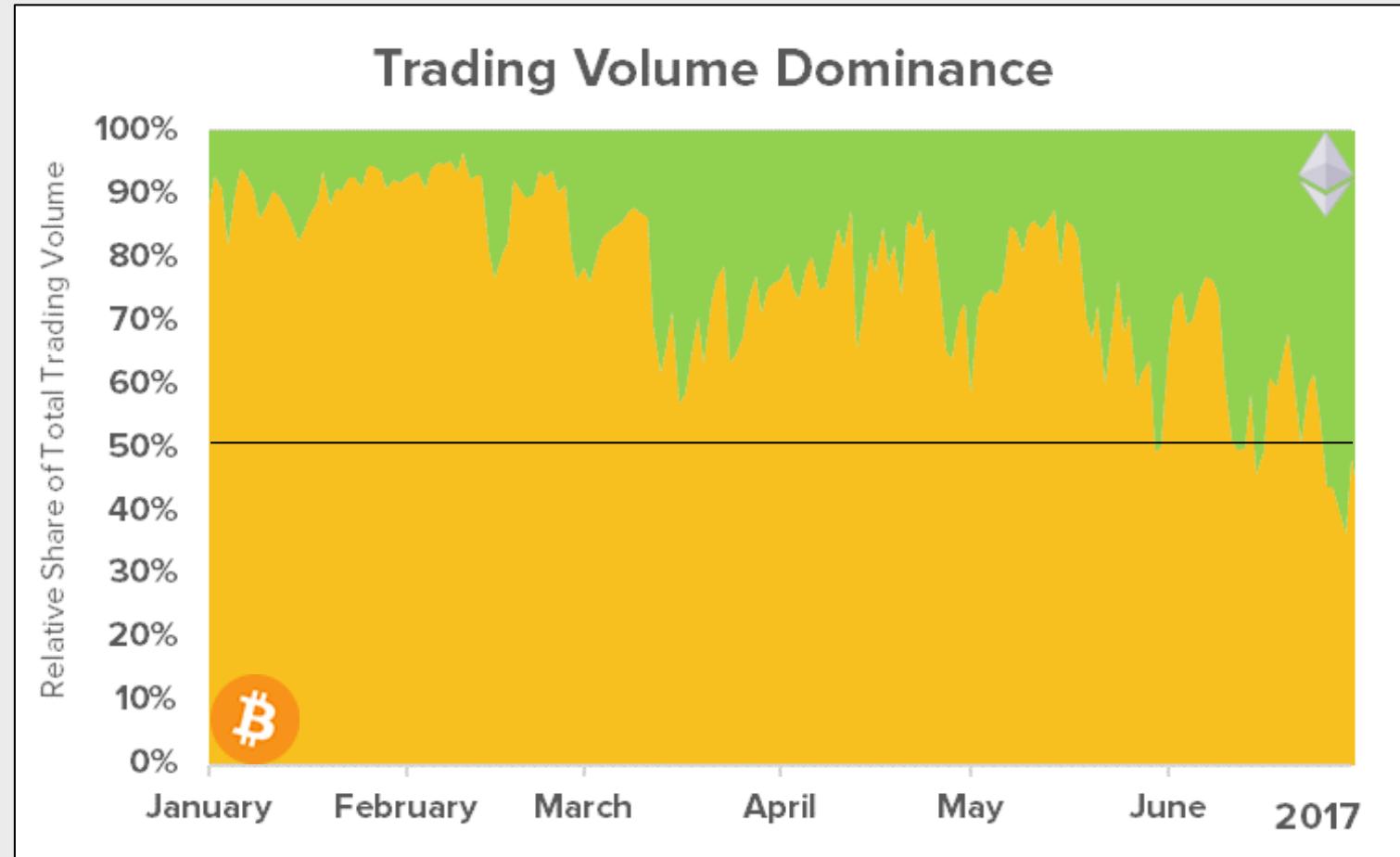


Data Sources: [Cryptocompare](#), [CoinDesk ether price page](#)

Notes: \$ value at the time across all listed currencies and exchanges



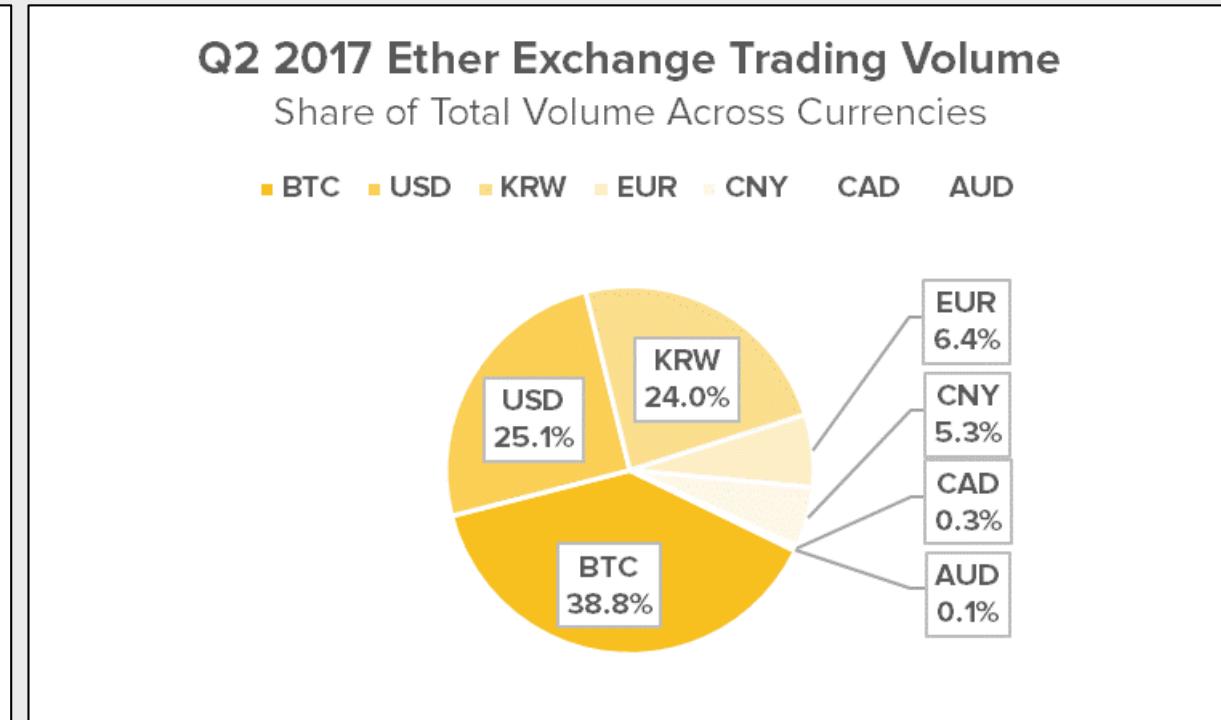
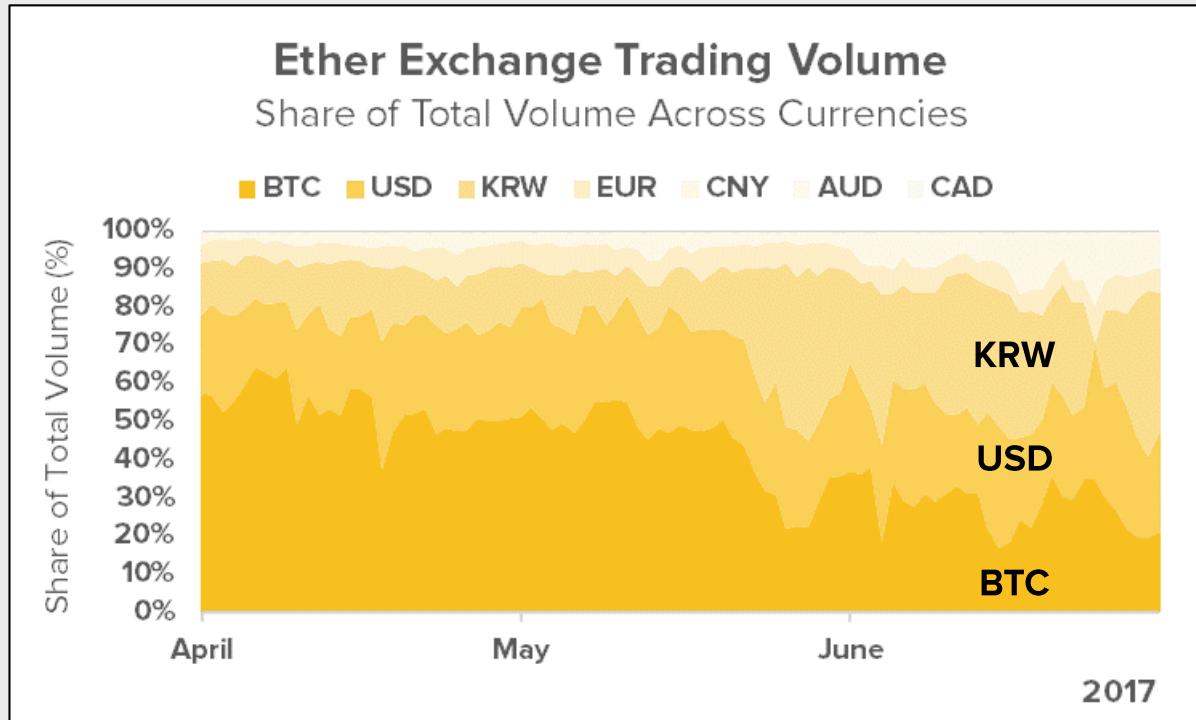
Ether Exchange Trading Volumes Exceed Bitcoin For First Time Near Quarter End



Data Source: [Coincap](#)



ETH Most Heavily Traded with BTC, KRW Gains Market Share on USD

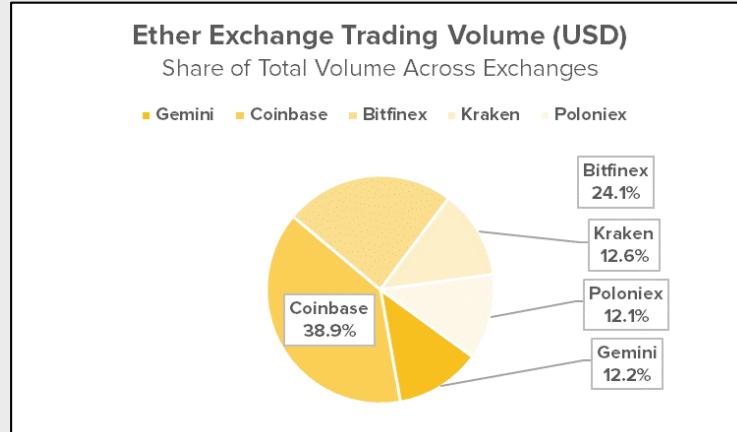
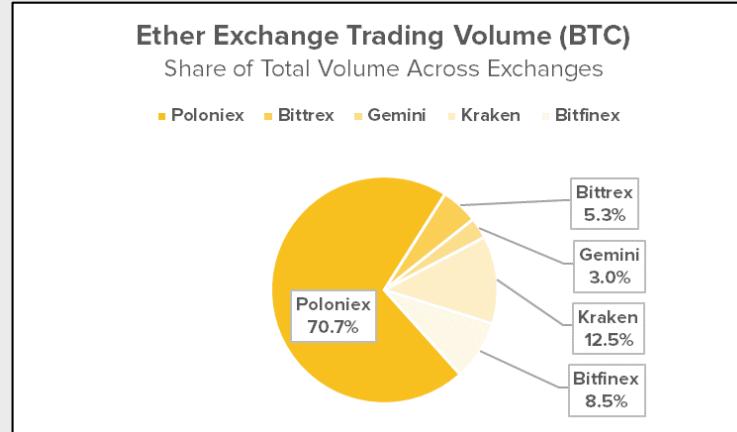


Q1 2017:
BTC: 58.5%
USD: 25.5%

Data Source: [Cryptocompare](#)



Poloniex Leads Continues to Lead Volume by Large Margin in BTC Markets, Coinbase Leads Narrowly with USD



Data Source: [Cryptocompare](#)

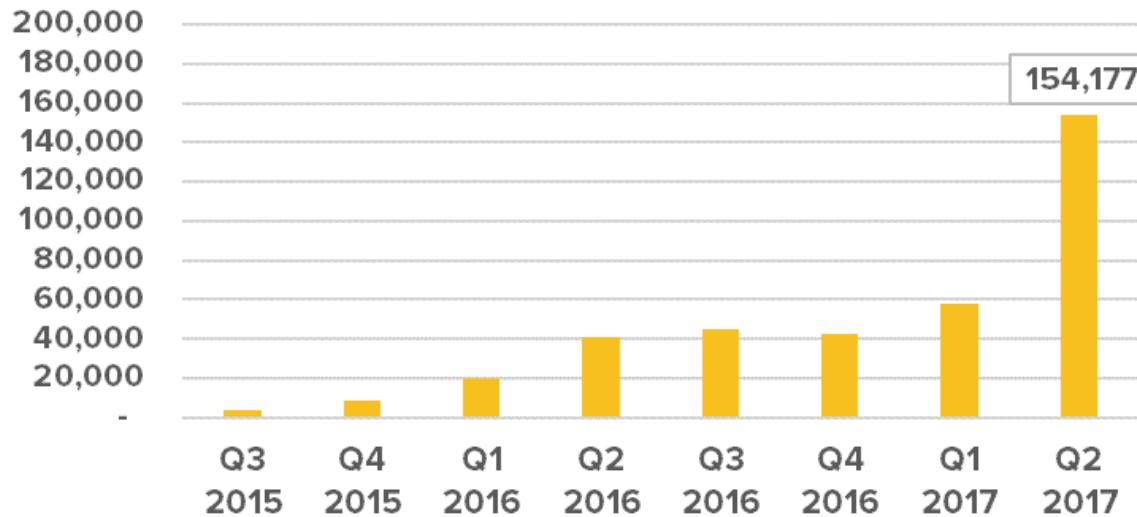


Transactions

Transaction Numbers Gain Steam,
Approach Bitcoin Usage

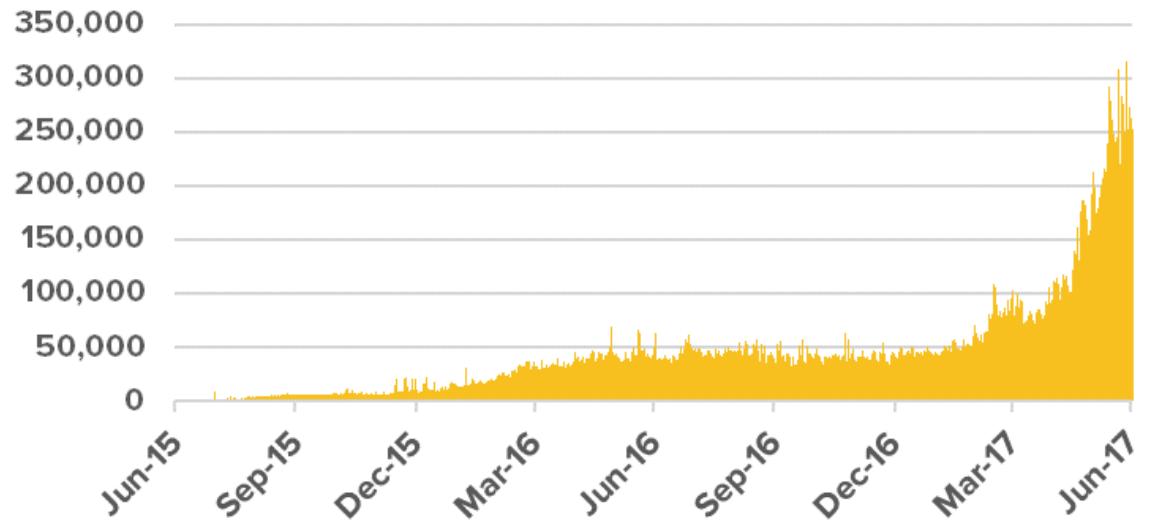
Ethereum Transaction Growth

(Average # per day)



Ethereum Transaction Growth

(Average # per day)

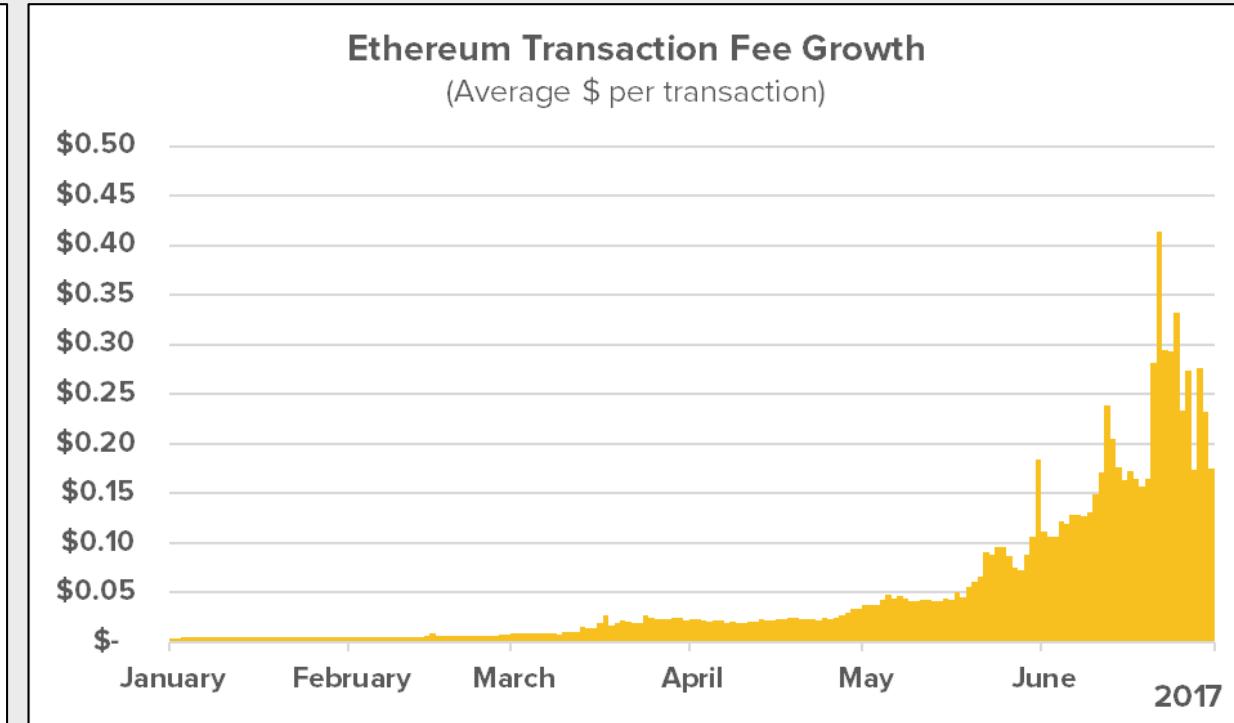
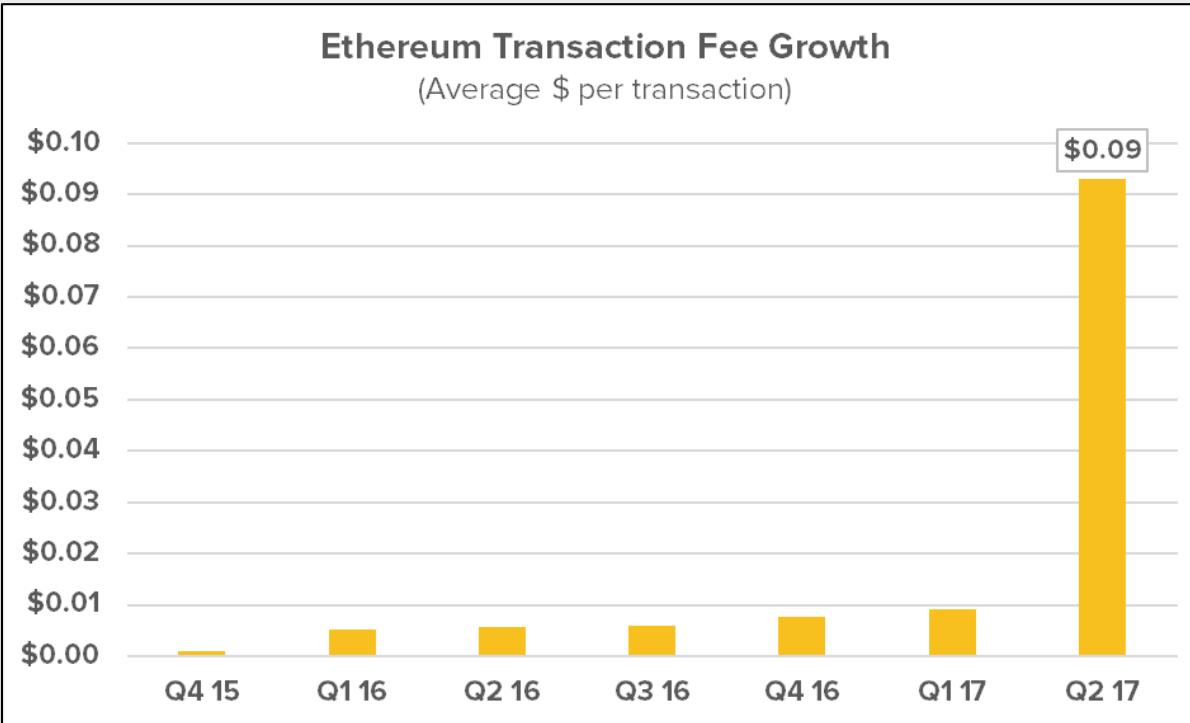


Transactions on the ethereum network
grew 165% from Q1 to Q2 2017



Fees

Transaction Fees Rise From Less Than 1¢ on Average in Q1 to Nearly 10¢ in Q2 2017



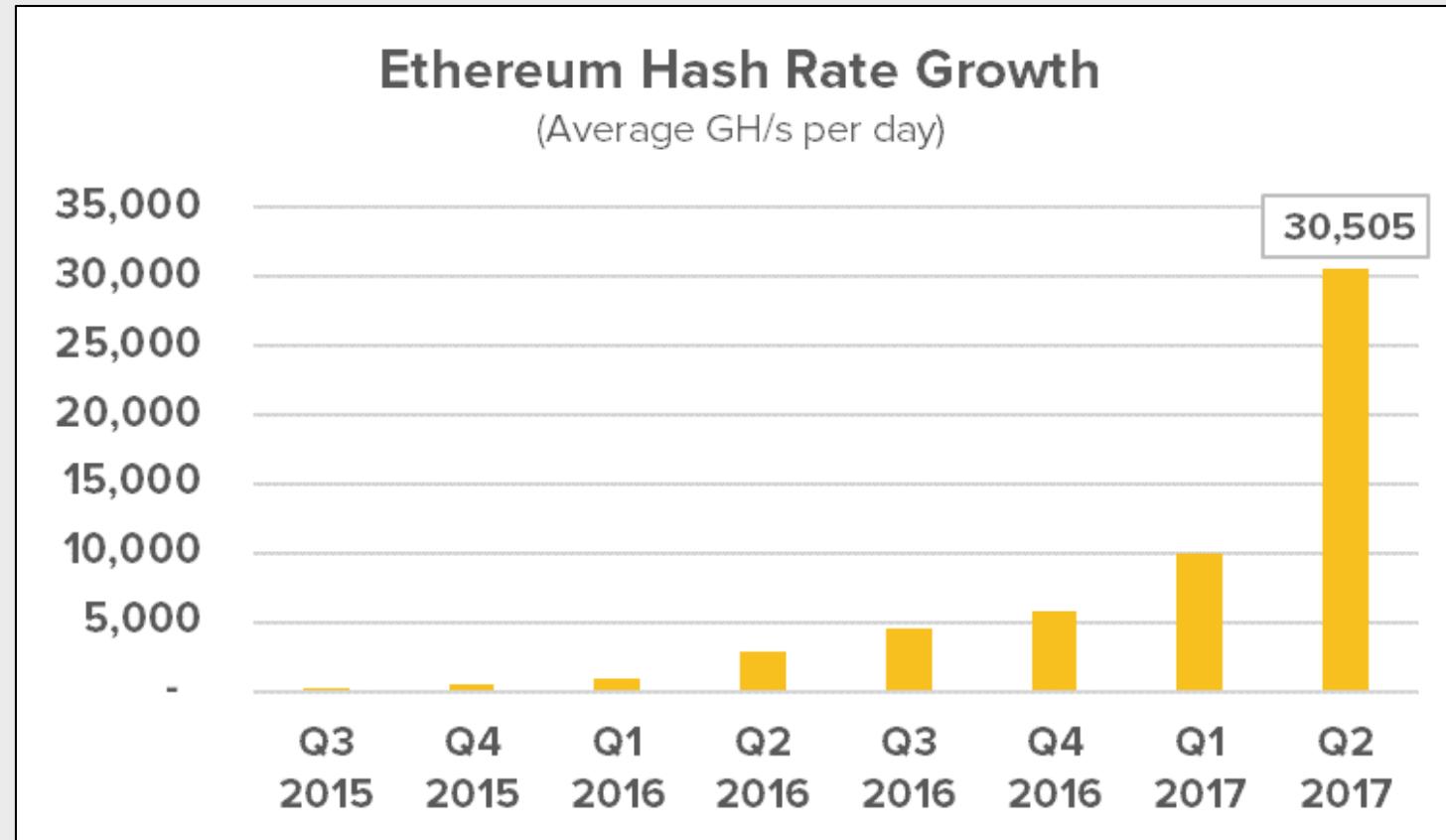
Transaction fees on the ethereum network
grew 918% from Q1 to Q2 2017

Data Sources: [Etherscan](#), [CoinDesk ether price](#)



Hash Rate

Hash Rate Securing the Network Triples
as Price and Total Valuation Skyrocket



Hashing power on the ethereum network
grew 205% from Q1 to Q2 2017

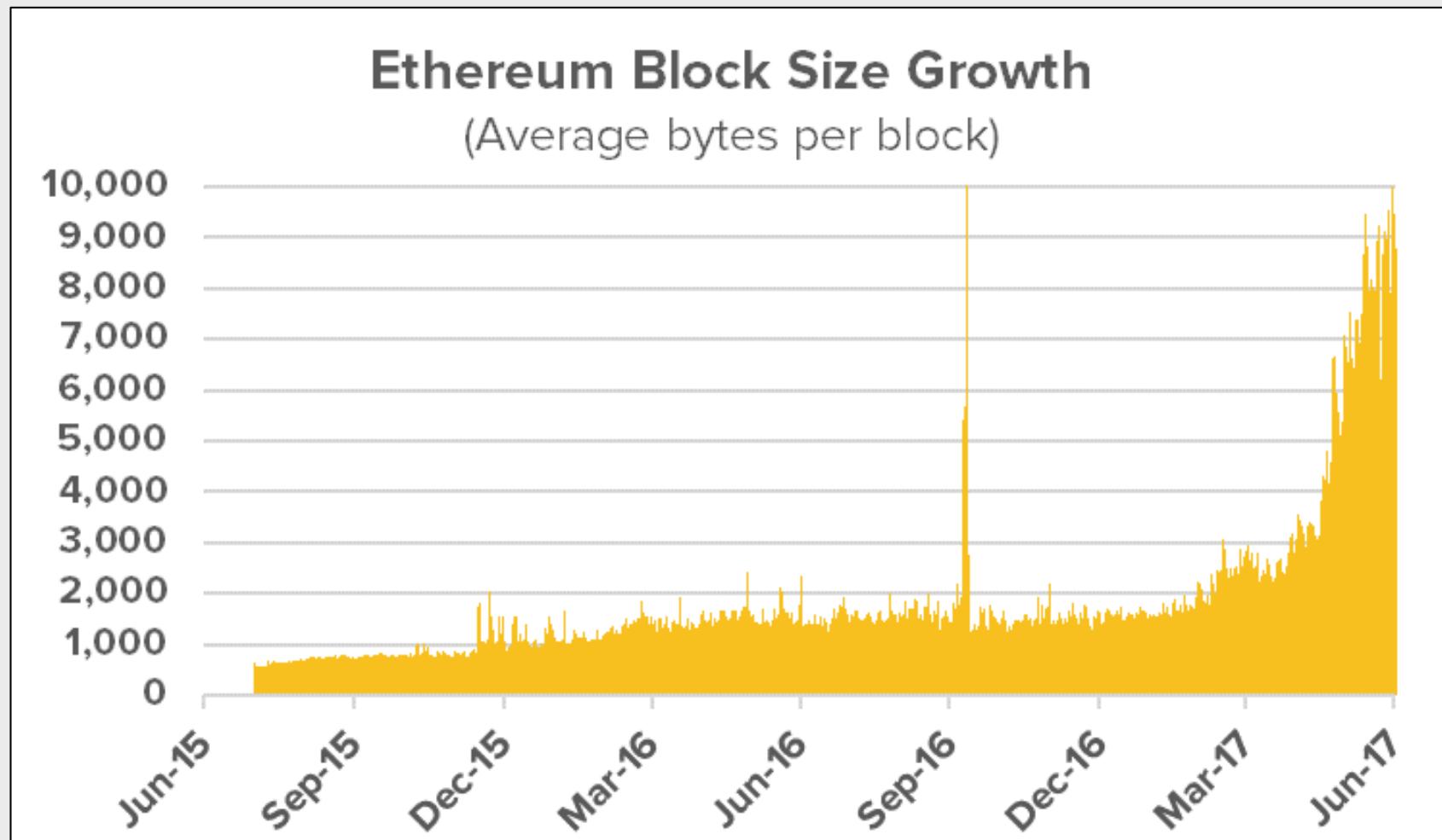
Data Source: [Etherscan](#)

Notes: 'GH/s' is the estimated number of gigahashes (billions of hashes) per second



Blocks

Block Sizes Grow to All-Time Highs
Amidst Increased Usage

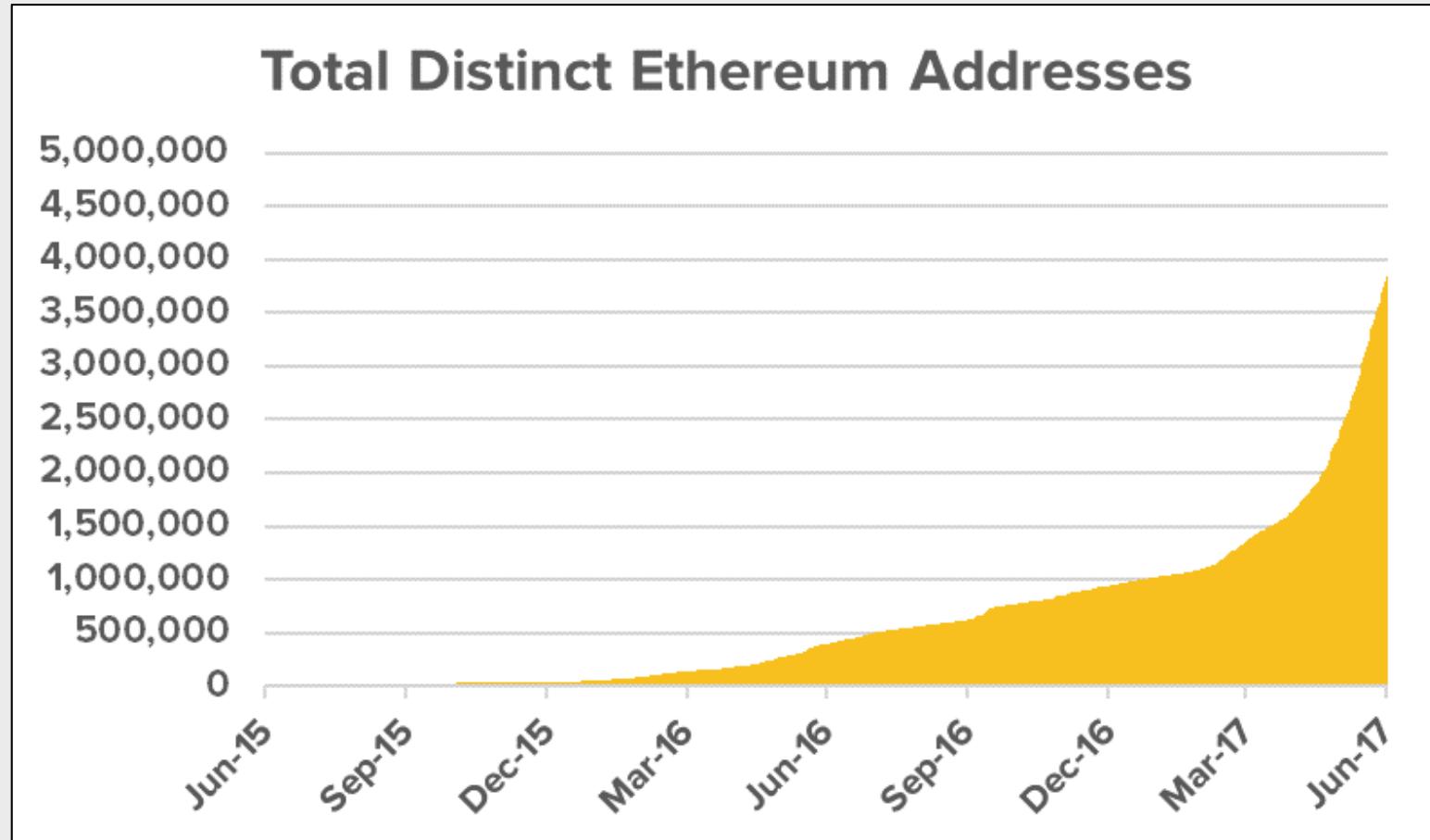


Data Source: [Etherscan](#)



Addresses

Addresses on the Ethereum Blockchain
Exceed 3 Million, Growing Quicker Than Ever



Data Source: [Etherscan](#)

Notes: Distinct addresses do not directly correlate to unique users, individuals frequently control the private keys to multiple addresses and exchanges frequently control the private keys to addresses that store multiple users' funds



Many ICOs Have Returned Tremendously Based on Dollar Prices, But Against Ether or Bitcoin Can Tell an Entirely Different Tale

Asset:	Ethereum	Augur	Golem	Ionomi	Melonport	First Blood	Digix	SingularDTV
Website:	Ethereum	Augur	Golem	Ionomi	Melonport	First Blood	Digix	SingularDTV
Token:	ETH	REP	GNT	ICN	MLN	1ST	DGD	SNGLS
Market Cap:	\$28.16bn	\$295m	\$427m	\$360m	\$44m	\$156m	\$166m	\$106m
Price:	\$294.92	\$28.10	\$.48	\$3.85	\$71.66	\$1.66	\$80.78	\$.17
ICO Price:	\$.31	\$.60	\$.01	\$.13	\$5.80	\$.06	\$3.24	\$.015
ICO Date:	9/2/2014	8/1/2015	11/11/16	8/25/2016	2/15/17	9/25/2016	3/1/2016	10/5/2016
Return:	95,035%	4,583%	4,700%	2,862%	1,136%	2,667%	2,393%	1,033%

Sample of protocol and dapp market cap growth:



ICO returns as compared to ETH

Q2

ETH
\$28.16bn
94.5%

ETH dapps
\$1.56bn
5.5%

Relative share of total shifts towards ETH

Market cap growth:

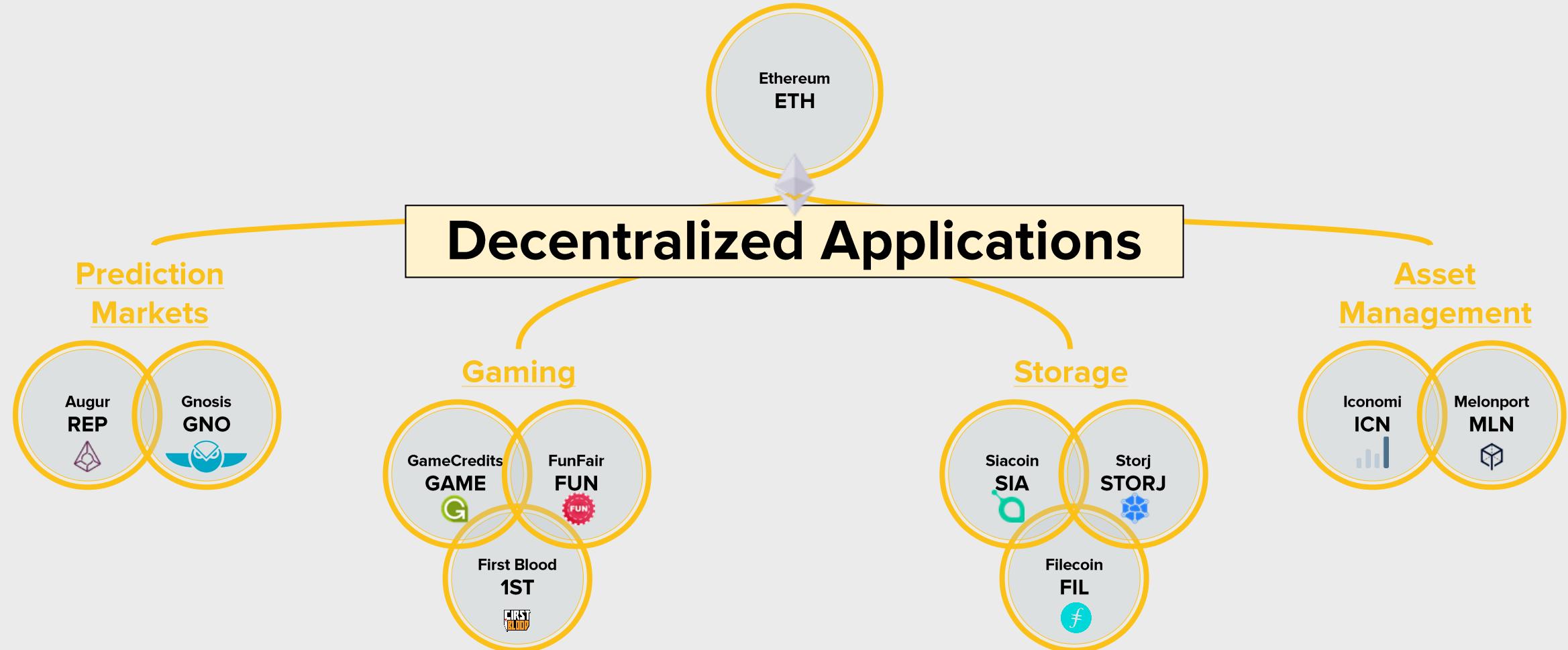
ETH – 550%
ETH dapps – 346%

Data Source: [Coinmarketcap](#), [ICOstats](#)

Notes: Market cap and price as of Q2 2017 (6/30/17), ICO stats calculated per \$ prices during ICO dates, not all ETH dapps shown



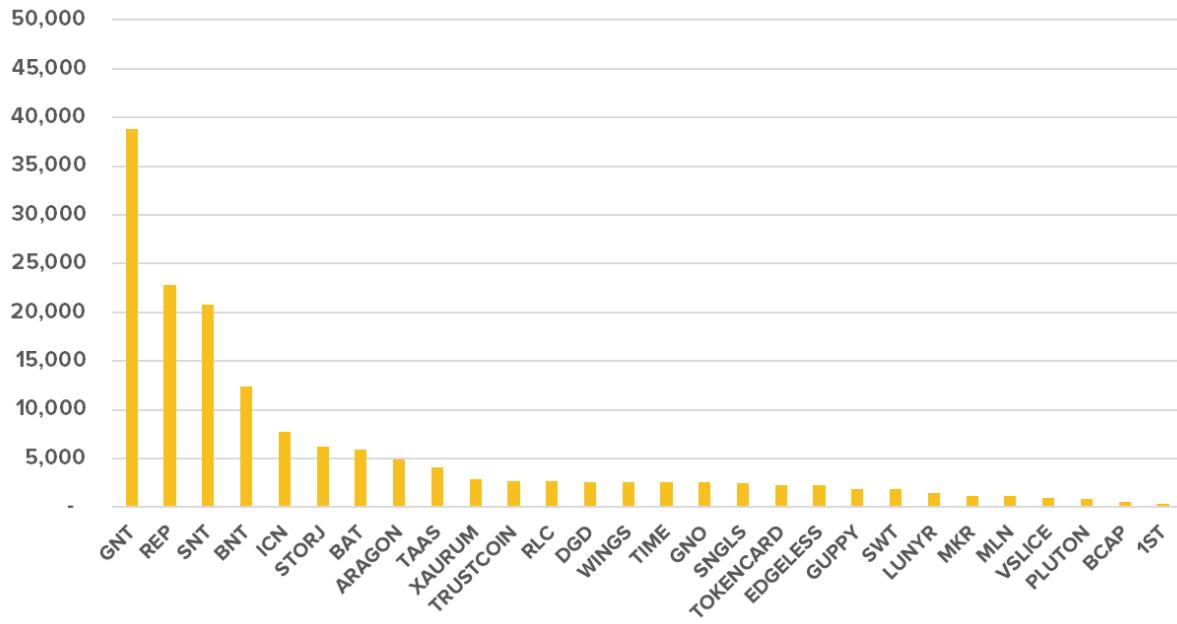
As Ethereum and Dapp Platforms Persist, The Ecosystem of Dapps and Sectors is Able to Build Out





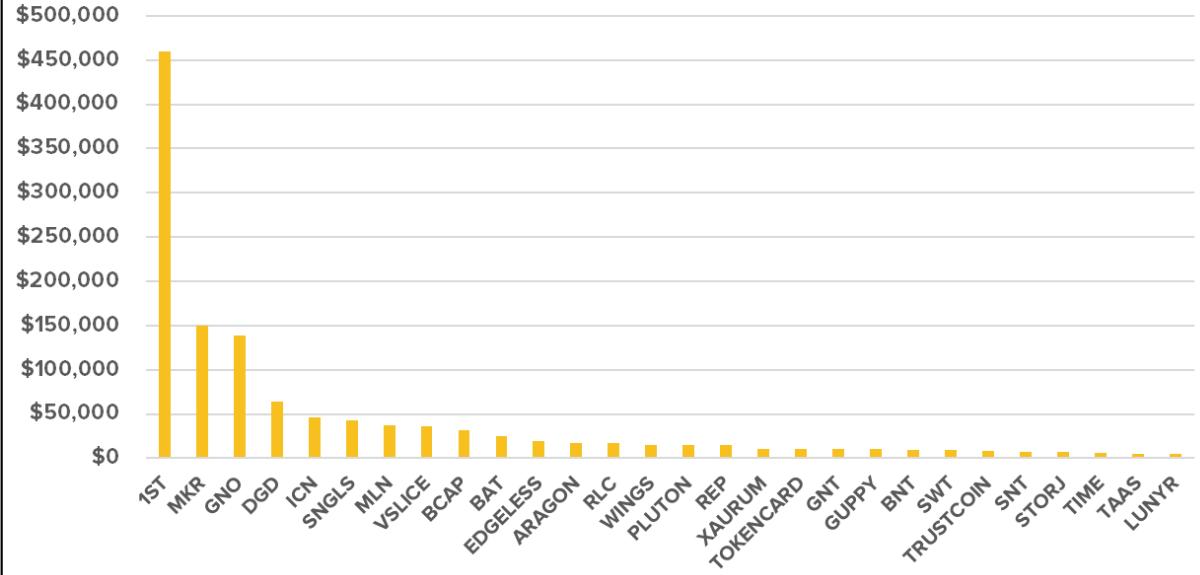
GNT, REP Remain the Most Widely Held Ethereum Tokens, 1ST Leads by Far in Terms of Average Token Value Held per Address

Ethereum Token Holders



Ethereum Tokens

Market Cap / # Addresses



Data Source: [Etherscan](#), [Coinmarketcap](#), [Coincap](#)

Notes: Distinct addresses do not directly correlate to unique users, individuals frequently control the private keys to multiple addresses and exchanges frequently control the private keys to addresses that store multiple users' funds



3

ENTERPRISE BLOCKCHAINS

Q2 2017 Enterprise Blockchain Summary

Diverse trials, PoCs, and integrations progress:

- Major firms like HP, Thomson Reuters, and the Moscow Stock Exchange have now launched testing and worked through integrations with Corda, Hyperledger Fabric, Sawtooth Lake, and Iroha, and permissioned versions of ethereum

FX and post-trade use cases gain traction:

- Cobalt's DLT based forex post-trade processing network garners interest from Citadel and other 21 beta and launch participants

Hyperledger Fabric and R3 Corda open beta testing:

- R3 launches Corda beta allowing open usage and testing of platform and tools, Hyperledger Fabric launches beta and release candidate at quarter end

Ripple grows banking global network, demos ILP:

- Adds 10 financial firms to its network, open-sources Interledger plug-ins for bitcoin and Chain, demos sending a single transaction across 7 ledgers including public and private blockchains, a centralized ledger and a traditional channel

Hyperledger & EEA memberships blossom:

- Consortia member counts continue rising with involvement from major enterprises, many companies opting to join both groups

R3 raises largest VC round of the quarter:

- R3 raises \$107m comprising 2 of 3 planned tranches of Series A, round comprises 45% of Q2's total VC funding bringing eyes to Corda



Permissioned Blockchains: Hyperledger Update



Sawtooth Lake

Case Studies:

SEAFOOD SUPPLY CHAIN TRACEABILITY	BOND ASSET SETTLEMENT	MARKETPLACE DIGITAL ASSET EXCHANGE
Traceability and accountability for the seafood industry	Secure bond trading and settlement	Generic platform for digital asset issuance and exchange

Fabric

A glimpse into Q3:
Hyperledger Fabric launches live

PoCs:

Trade Finance:

- 7 European banks working with IBM to build a trade finance platform for small- and medium-sized enterprises

International Transactions:

- SWIFT, 6 global banks

Stock Exchange:

- Santiago Stock Exchange, Latin America's third-largest stock exchange, working with IBM

Stockholder Voting:

- TMX

Iroha

PoCs:

Central Banking:

- National Bank of Cambodia working with Soramitsu

Burrow

Interoperability:

- Working to get the Ethereum Virtual Machine running on Sawtooth Lake

**Intro to Hyperledger:
Q1 2017 State of Blockchain**

Data Source: [Hyperledger](#)



Permissioned Blockchains: Enterprise Ethereum Alliance Update



7 new working groups

- Newly formed working groups spanning diverse industries

Tokens

Banking

Healthcare

Insurance

Advertising

Legal

Supply Chain

- In addition to a technical steering committee

World's largest open source blockchain initiative

- Total memberships crosses 150 organizations just 6 months after launch

**Intro to Enterprise Ethereum Alliance:
Q1 2017 State of Blockchain**

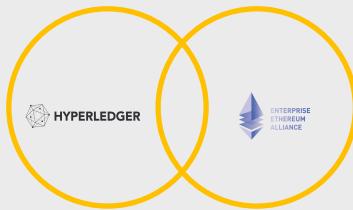
Data Source: [Enterprise Ethereum Alliance](#)



Permissioned Blockchains: Hyperledger and Enterprise Ethereum Alliance Memberships



6 of the 19 major Hyperledger Premier Members are also members of the Enterprise Ethereum Alliance



Many organizations have now joined both, including:

Traditional Enterprises

- BBVA
- BNY Mellon
- Broadridge
- Deloitte

Blockchain Startups

- Bloq
- ConsenSys
- Gem
- Monax



4

INVESTMENT



Q2 2017 Investment Summary

Token sale supply explodes:

- Global issuers assemble to sell and distribute tokens, with massive deals open and on horizon

ICO deal sizes continue breaking records:

- Numerous ICOs have exceeded the largest blockchain VC deal, several raising over \$200m

Few venture capital backed deals:

- Leading raises were for infrastructure based projects, R3, Blockchain, Canaan

ICOs overtake VC as dominant funding source:

- ICO demand matches supply, over 3x the quantity and total of blockchain venture deals

Major returns have followed some ICOs:

- Returns on certain token sales have far exceeded holding bitcoin or ether on short term

Regulation hangs on the horizon:

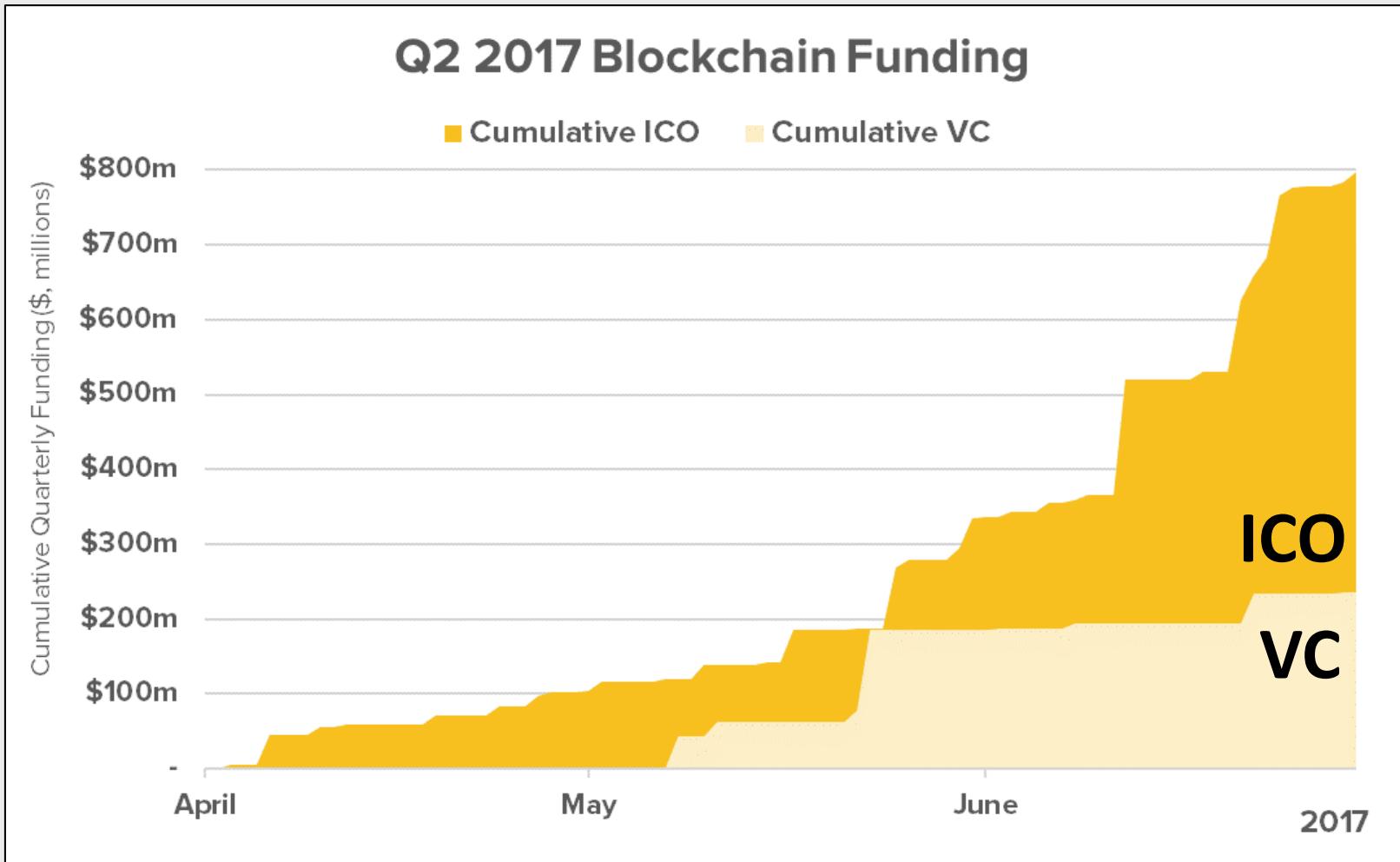
- Major governmental agencies are still yet to clearly speak out on tokens and crowdsales

A glimpse into Q3:

Filecoin [raises \\$200m+](#) from accredited investors and in a pre-sale and using the Coinlist platform



Blockchain Funding Grew Dramatically in Q2, ICOs Exceeded VC by Over 3x



ICO
\$797m

VC
\$235m

Top ICO Deals:
Bancor - \$153m
Status - \$95m
TenX - \$83.1m
MobileGo - \$53.1m

Top VC Deals:
R3 - \$107m
Canaan - \$43.6m
Blockchain - \$40m
Axoni - \$20m

Q1
ICO
\$36m **VC**
\$107m

Data Sources: CoinDesk venture capital database, CoinDesk ICO Tracker

Notes: Deals under \$100,000 excluded, \$ amount at time raised, including only fundraisers ending in 'Q2 2017' (4/1/17 – 6/30/17)



Blockchain ICOs Dramatically Outweighed VC Funding in Both Size and Quantity

ICO

Q2 2017 VC		
Date	Project	VC Round (\$m)
5/8/2017	Canaan	\$43.60
5/11/2017	Axoni	\$20.00
5/22/2017	RSK	\$3.50
5/22/2017	LedgerX	\$11.40
5/23/2017	R3	\$107.00
5/25/2017	BTCS	\$1.00
6/2/2017	OB1	\$0.20
6/8/2017	Stratumn	\$7.00
6/22/2017	Blockchain	\$40.00
6/29/2017	POSaBIT	\$1.50
Total		\$235.20

VC

Q2 2017 ICOs		
Date	Project	ICO Round (\$m)
4/3/2017	Matchpool (GUP)	\$5.63
4/6/2017	Aeternity (XAE)	\$22.63
4/6/2017	Cosmos Network (ATOM)	\$16.80
4/10/2017	Blockchain Capital (BCAP)	\$10.00
4/12/2017	WeTrust (TRST)	\$4.66
4/19/2017	IEX.EC (RLC)	\$12.12
4/24/2017	Gnosis (GNO)	\$12.25
4/27/2017	Humaniq (HMQ)	\$5.16
4/27/2017	TaaS (TAAS)	\$7.57
4/28/2017	Back to Earth (SRC)	\$0.97
4/28/2017	Lunyr (LUN)	\$5.32
4/30/2017	AppTrade (APPX)	\$0.24
5/1/2017	Creativechain (CREA)	\$0.35
5/2/2017	TokenCard (TKN)	\$12.70
5/7/2017	Quantum Resistant Ledger (QRL)	\$4.16
5/10/2017	BOScoin (BOS)	\$17.92
5/15/2017	Ethbits (ETB)	\$1.28
5/15/2017	Legends Room (LGD)	\$1.23
5/15/2017	Peerplays (PEERPLAYS)	\$1.46
5/17/2017	BitcoinGrowthFund (MCAP)	\$19.35
5/17/2017	Aragon (ANT)	\$24.75
5/22/2017	E4ROW (E4ROW)	\$0.86
5/25/2017	MobileGo (MOBILEGO)	\$53.07
5/25/2017	Storj (STORJ)	\$29.22
5/26/2017	Metal (METAL)	\$0.03
5/26/2017	Veritaseum (VER)	\$9.58
5/30/2017	Surely (SUR)	\$1.68
...

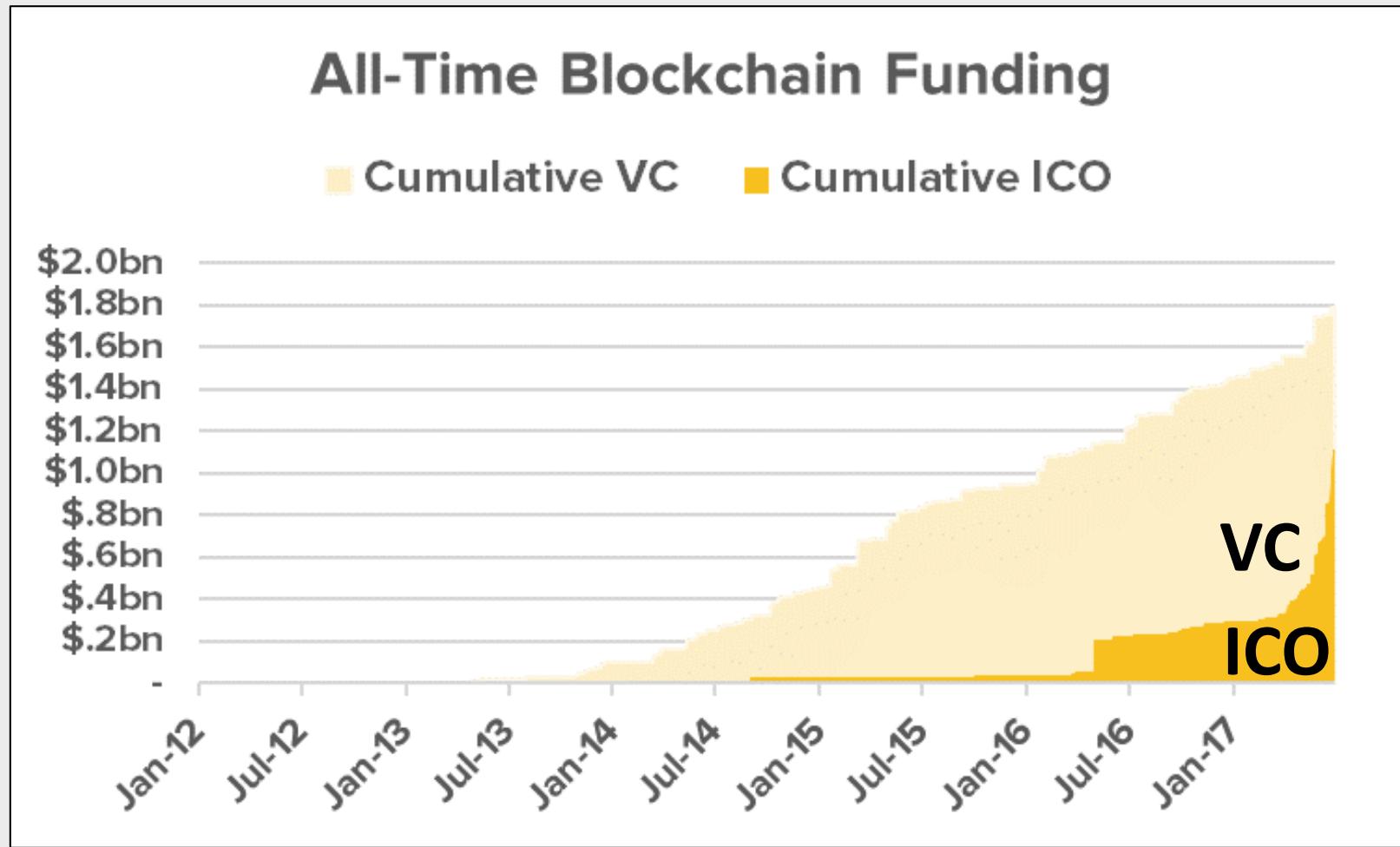
Q2 2017 ICOs		
Date	Project	ICO Round (\$m)
5/30/2017	Mysterium Network (MYST)	\$14.10
5/31/2017	Basic Attention Token (BAT)	\$35.00
5/31/2017	Exscudo (EON)	\$5.30
6/1/2017	Adel (ADL)	\$1.21
6/2/2017	Embermine (EMB)	\$0.08
6/3/2017	Patientory (PTOY)	\$6.52
6/6/2017	Cofound.it (CFI)	\$11.34
6/6/2017	VOISE (VSM)	\$0.41
6/8/2017	EcoBit (ECOB)	\$3.49
6/9/2017	Zrcoin (ZRC)	\$7.01
6/11/2017	Aira (AIR)	\$1.02
6/12/2017	Bancor (BNT)	\$153.00
6/18/2017	Monaco (MCO)	\$10.29
6/21/2017	Internet of Coins (HYBRID)	\$1.10
6/21/2017	Status (SNT)	\$95.00
6/22/2017	Civic (CVC)	\$33.00
6/23/2017	FootballCoin (XFC)	\$2.42
6/23/2017	OmiseGO (OMG)	\$21.00
6/24/2017	TenX (PAY)	\$83.11
6/25/2017	Wagerr (WGR)	\$9.92
6/25/2017	CryptoPing (PING)	\$0.39
6/26/2017	iDice (ICE)	\$2.02
6/27/2017	SilverCoin (SVC)	\$0.21
6/28/2017	21 Million (21M)	\$0.38
6/29/2017	DCORP (DRP)	\$5.05
6/30/2017	AdEx (ADX)	\$12.31
6/30/2017	BlockPool (BPL)	\$1.75
Total		\$797.42

Data Sources: CoinDesk venture capital database, CoinDesk ICO Tracker

Notes: Deals under \$100,000 excluded, \$ amount at time raised, including only fundraisers ending in 'Q2 2017' (4/1/17 – 6/30/17)



Massive Q2 2017 Catapults ICO Funding Towards Total Traditional Venture Backing



ICO
\$1.13bn

VC
\$1.79bn

Top ICO Deals:
Bancor - \$153m
The DAO - \$152m
Status - \$95m
TenX - \$83.1m

Top VC Deals:
21 - \$116m*
R3 - \$107m
Coinbase - \$75m
Digital Asset - \$60m

Data Sources: [CoinDesk venture capital database](#), [CoinDesk ICO Tracker](#)

Notes: Deals under \$100,000 excluded, \$ amount at time raised, including only fundraisers ending in 'Q2 2017' (4/1/17 – 6/30/17)

*Amount contested and frequently reported between \$75m - \$116m

Institutional Capital Continues to Flow in, Now Directed Towards Investment into Tokens

A growing wave of new cryptocurrency focused hedge funds must still deal with traditional enterprises including:

- Law firms
- Audit firms
- Banks.

Many of these firms have limited expertise, familiarity, and comfort in dealing with blockchain technology and assets. They are pioneers and writing new rules on what key price indicators for coins are. Hundreds of millions if not billions of dollars are working through the hurdles of deploying institutional and managed capital into blockchain tokens.

20 Institutional Crypto Funds
Alphabit Fund
Auryn Capital
Block View Capital
Blockchain Capital
BlockTower Capital
Brian Kelly Capital Management
Coinshares 1 LP
Crypto Asset Fund
Crypto Assets Fund
Crypto Lotus
Cryptocurrency Fund LLP
General Crypto
Global Advisors
Grasshopper Capital
Metastable Capital
Pantera Capital
Placeholder Capital
Pollinate Capital
Polychain Capital
SuperBloom Capital

Data sources: [CoinDesk](#), [Forbes](#)

Note: Some of the above announced in Q3 2017



Blockchain ICOs Have Raised Dramatically More Funding for Projects than in Any Type of Crowdfunding Prior

All Crowd资金

Project	Category	Platform	Amount raised
Star Citizen	Video game	Kickstarter, Independent	\$153,000,000
Bancor	Blockchain	Ethereum	\$152,000,000
The DAO	Blockchain	Ethereum	\$150,000,000
Status	Blockchain	Ethereum	\$103,000,000
Elio Motors	Other	Independent	\$102,000,000
TenX	Blockchain	Ethereum	\$80,000,000
AEternity	Blockchain	Ethereum	\$62,500,000
MobileGo	Blockchain	Ethereum, Waves platform	\$53,069,235
Basic Attention Token	Blockchain	Ethereum	\$35,000,000
Aragon	Blockchain	Ethereum	\$25,000,000
Pebble Time	Smartwatch	Kickstarter	\$20,338,986
Prison Architect	Video game	Independent, Steam Early Access	\$19,000,000
Ethereum	Blockchain	Independent	\$18,439,086
TokenCard	Blockchain	Ethereum	\$16,516,286
Waves	Blockchain	Independent	\$16,436,095
Qtum	Blockchain	hybrid blockchain platform	\$15,664,829
Cofound.it	Blockchain	Ethereum	\$14,700,000
Coolest Cooler	Computing hardware	Kickstarter	\$13,285,226
Ubuntu Edge	Computing hardware	Indiegogo	\$12,814,196
Gnosis	Other	Ethereum	\$12,500,000
Flow Hive	Food	Indiegogo	\$12,174,187
iEx.ec	Other	Ethereum	\$12,158,963
Shroud of the Avatar: Forsaken Virtues	Video game	Kickstarter, Independent, Steam Early Access	\$11,610,287
Ionomi	Other	Ethereum	\$10,682,516
BauBax	Other	Kickstarter, Indiegogo	\$10,271,965
Pebble	Smartwatch	Kickstarter	\$10,266,845
Exploding Kittens	Board game	Kickstarter	\$8,782,571
Golem	Blockchain	Ethereum, Independent	\$8,600,000
Ouya	Video game	Kickstarter	\$8,596,474
Gut Weißenhaus	Other	Companisto	\$8,148,450
Shenmue III	Video game	Kickstarter, Independent	\$6,333,295
FirstBlood	Software	Ethereum	\$6,267,767
Pono Music	Computing hardware	Kickstarter	\$6,225,354
Mayday PAC	Other	Independent	\$6,132,554
Fidget Cube	Other	Kickstarter	\$6,038,945
Veronica Mars	Movie	Kickstarter	\$5,702,153
Lisk	Software	Bitcoin, Independent	\$5,700,000
Bloodstained: Ritual of the Night	Video game	Kickstarter	\$5,545,991
DigixDAO	Blockchain	Ethereum	\$5,500,000
The Grid	Software	Independent	\$5,489,376
Project Bring Back Reading Rainbow for Every Child, Everywhere	Movie	Kickstarter	\$5,408,916
Augur	Blockchain	Ethereum, Independent	\$5,133,000
Restore King Chapel Now, Every Day & Dollar Counts	Other	Indiegogo	\$5,048,213
An Hour of Code for Every Student	Other	Indiegogo	\$5,024,281
Mastercoin	Software	Bitcoin, Independent	\$5,000,000

https://en.wikipedia.org/wiki/List_of_highest_funded_crowdfunding_projects

Data Sources: [CoinDesk ICO Tracker](#), [Video Game Crowdfunding Wiki](#), [Indiegogo Wiki](#), [Kickstarter Wiki](#)

Blockchain ICOs

Top Blockchain Crowdfunding Projects	
Project	Funding Round Size
Bancor	\$153.0m
The DAO	\$152.0m
Status	\$95.0m
TenX	\$83.1m
MobileGo	\$53.1m

Kickstarter Crowd资金

Top Kickstarter Crowdfunding Projects	
Project	Funding Round Size
Pebble Time	\$20.3m
Coolest Cooler	\$13.3m
Pebble 2	\$12.8m
Kingdom Death: Monster 1.5	\$12.4m
Pebble: E-Paper Watch	\$10.3m

Video Game Crowd资金

Top Video Game Crowdfunding Projects	
Project	Funding Round Size
Star Citizen	\$153.7m
Shroud of the Avatar: Forsaken Virtues	\$11.8m
Ouya	\$8.6m
Shenmue III	\$6.3m
Bloodstained: Ritual of the Night	\$5.5m

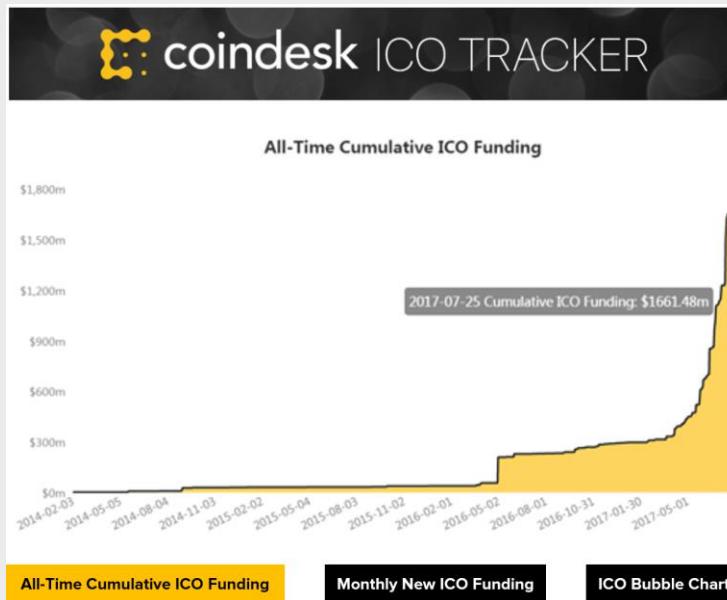
Indiegogo Crowd资金

Top Indiegogo Crowdfunding Projects	
Project	Funding Round Size
Flow Hive	\$12.1m
Sonders Electric Bike	\$5.9m
Restore King Chapel Now	\$5.0m
An Hour of Code for Every Student	\$5.0m
Super Troopers 2	\$4.5m



New CoinDesk ICO Website Tool: ICO Tracker

All-Time ICO Funding



Monthly ICO Funding



Individual ICO Explorer



Download the underlying data or tell us about a previous, ongoing, or upcoming deal!

Data Source: [CoinDesk ICO Tracker](#)





5

GOVERNMENT & REGULATION



Q2 2017 Government & Regulation Summary

IMF discusses Central Bank backed Digital Currencies:

- New [report](#) dives into blockchain technology, existing financial infrastructure, and how governments may issue their own DLT based representations of currency

China moves to address digital currency industry:

- After intervening into exchange practices in January, government now funds research and long-term plans

Global ecosystem remains unsure about ICO legality:

- Limited comments on tokens from major regulatory bodies worldwide from the perspective of investors, issues, and exchanges

Groups worldwide fund, research, and test blockchain:

- In light of strong opinions and action, most nations and agencies look to continue watching and learning

A glimpse into Q3:

The SEC [declares](#) The DAO tokens were securities and the crowdsale was an illegal securities offering



Americas: Mixed Bag of Actions as Regulators Seek to Understand Blockchain and its Applicability to the Existing World



Apr. 17 – Washington enacts stricter requirements on digital currency businesses, leading to several startups ceasing service in the state

Apr. 21 – SEC discloses they are examining EtherIndex's ETF proposal, comprised of ether and custodied by Coinbase

Apr. 27 – Quebec's Financial Markets Authority joins R3

May 25 – Father and son sentenced to 10+ years prison for operating an unlicensed money servicing business using Localbitcoins

May 25 – New regulation causes commotion around inapplicability of \$10k value declaration requirements when crossing borders in a world of cryptocurrency private keys

Jun. 5 – Nevada Senators approve bill prohibiting a local government from taxing or imposing restrictions upon the use of a blockchain

Jun. 21+ – FBI, CFTC ask for additional funding to further research and surveillance of blockchain technology



Europe: Research Projects and Testing Grow in a Generally Open Environment



Apr. 11 – European Central Bank re-affirms blockchain and distributed ledger technology remains too immature to be used in the Eurosystem's market infrastructure

Apr. 20 – Malta's government prepares 'national strategy to promote blockchain'

Jun. 2 – European Union gives €5m funding to "Tools for the Investigation of Transactions in Underground Markets" 3 year surveillance project

Jun. 7 – European Commission launches #Blockchain4EU, research project to analyze blockchain business use cases in the EU, months after €500k blockchain observatory pilot funding

Jun. 7 – Government owned Swedish power company and 22 other European energy trading firms announce effort to build a peer-to-peer trading system in the wholesale energy market while testing applications of blockchain technology



Asia: Embracing and Moving Forward with Blockchain Technology



Apr. 17 – Indian government investigating digital currencies and needed regulation, startups ask to be involved in discussions

May 30 – Monetary Authority of Singapore, numerous domestic banks, and R3 release details of Project Ubin, a recently completed proof of concept focused on tokenizing the Singapore Dollar in a distributed ledger system

Jun. 1 – China Banking Regulatory Commission publishes paper on opportunities and challenges associated with blockchain technology, advocating for cross-border and industry collaboration as well as creation of a "regulatory sandbox"

Jun. 21 – National Bank of Cambodia moves ahead with development of more efficient interbank payments solution utilizing Hyperledger Iroha

Jun. 27 – People's Bank of China to release 5 year plan to help China's financial industry embrace economic reform and actively push forward the development of new technologies including blockchain



Middle East and Australia: Financial Systems



Apr. 13 – Reserve Bank of Australia discloses in-house working group to examine blockchain technology

May 4 – Australian Government reaffirms pledge, consults with fintech advisory group to modify bitcoin's 'double taxation' treatment

Jun. 7 – Australian government sponsored reports discuss short and long term risk and opportunities of blockchain technology

Jun. 13 – National Bank of Kazakhstan announces plan to launch mobile app to allow retail investors to buy short-term debt notes, harnessing blockchain technology to cut out brokers



6

Blockchain Sentiment Survey

SPOTLIGHT STUDY



Q2 2017 Blockchain Sentiment Survey: Demographics – 1,300+ Respondants



17% Executives, 15% Developers, 11% Investors
7% Full-Time Blockchain, 22% Part-Time
5% work at Blockchain Technology Companies,
6% at Investment Services
15% Accredited, 85% Unaccredited investors



40% first bought cryptocurrency in 2017,
16% in 2016, 12% in 2013
Median respondent owned 4 unique digital assets,
mean 5.8, top 10% over 12
22% own \$10k - \$50k worth of cryptocurrency,
20% own \$1k - \$5k, 16% own \$0 - \$1k
41% transact a couple times a month, 26% a couple
times a week, 14% a couple times a year



Male
93%



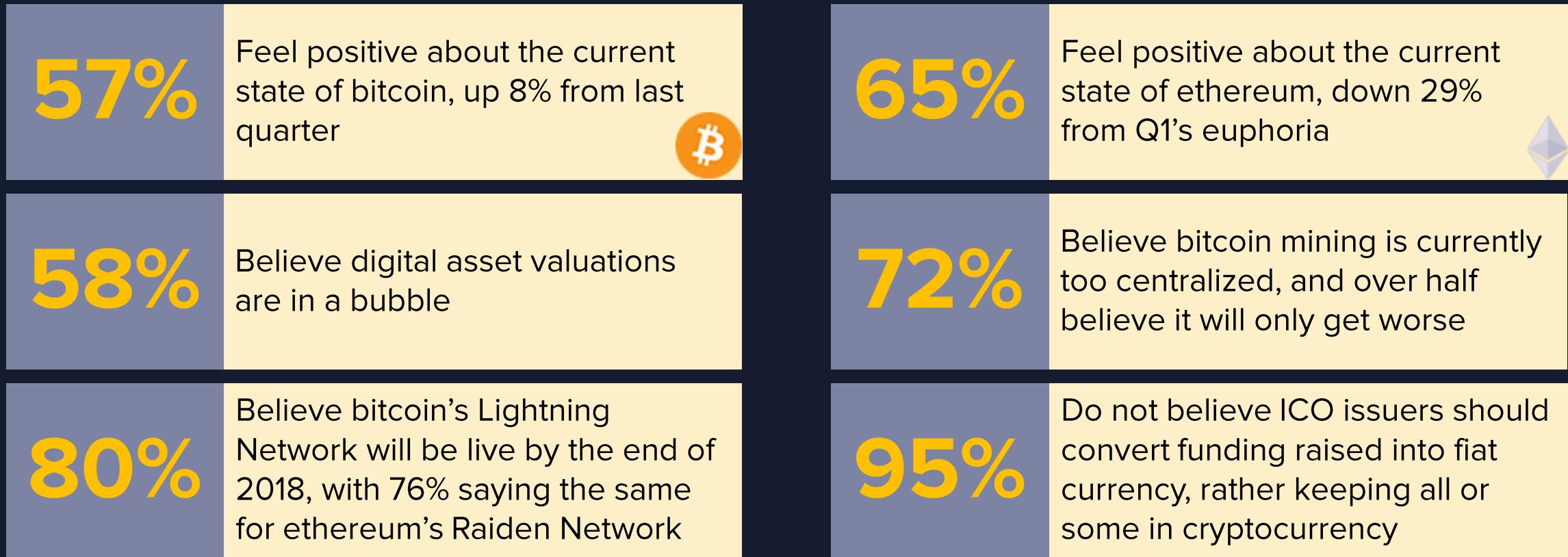
Female
7%



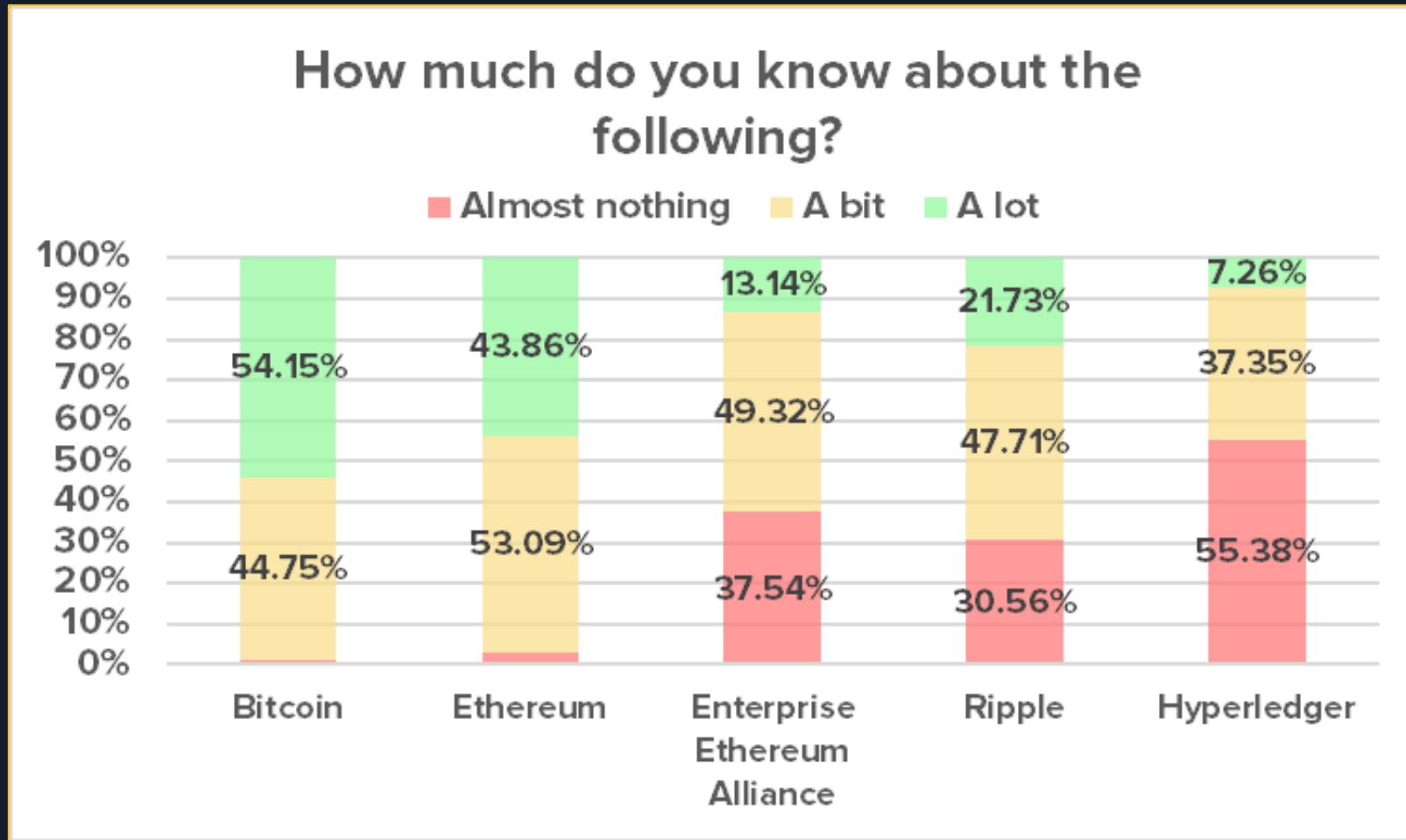
Data Source: CoinDesk's Q2 2017 Blockchain Sentiment Survey



Q2 2017 Blockchain Sentiment Survey: Key Takeaways

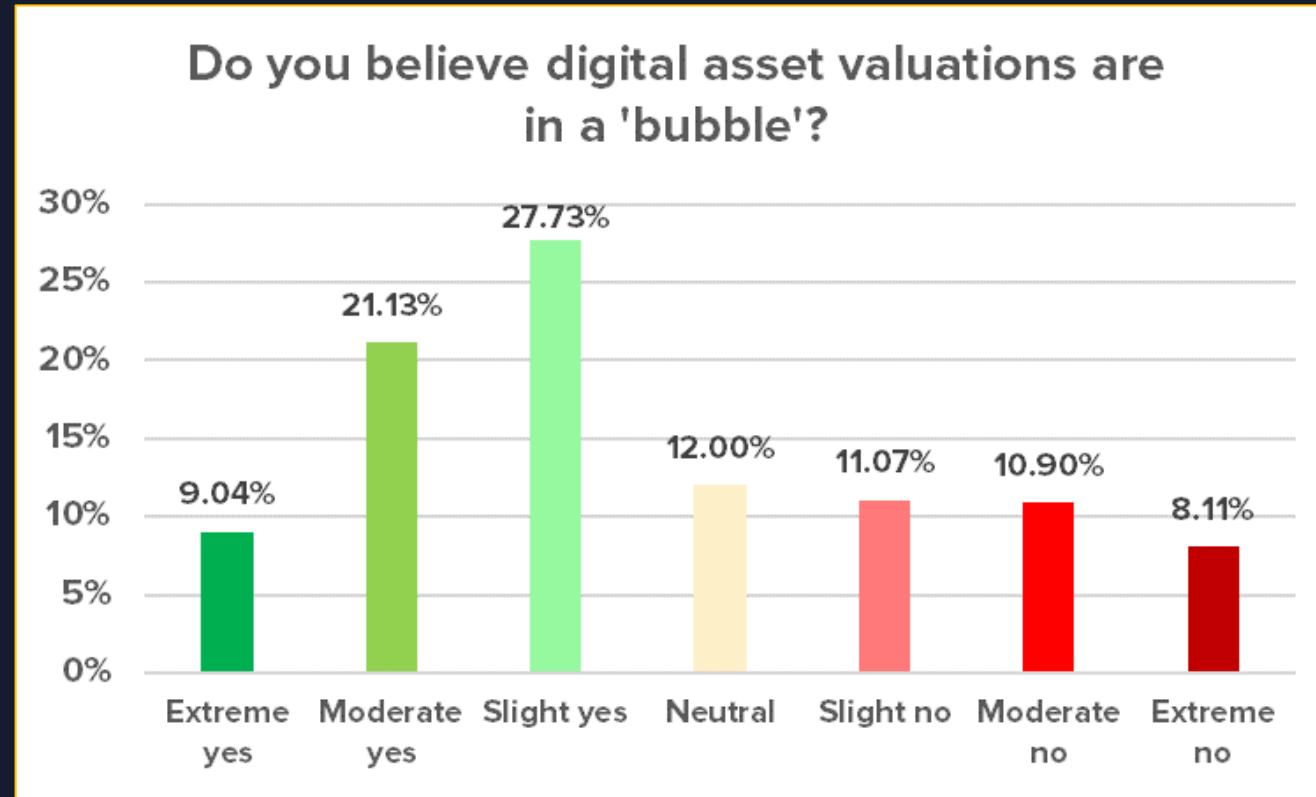


Perceived Knowledge on Top Public Protocols and Assets Far Exceeds Knowledge Around Major Enterprise Oriented Projects



Data Source: CoinDesk's Q2 2017 Blockchain Sentiment Survey

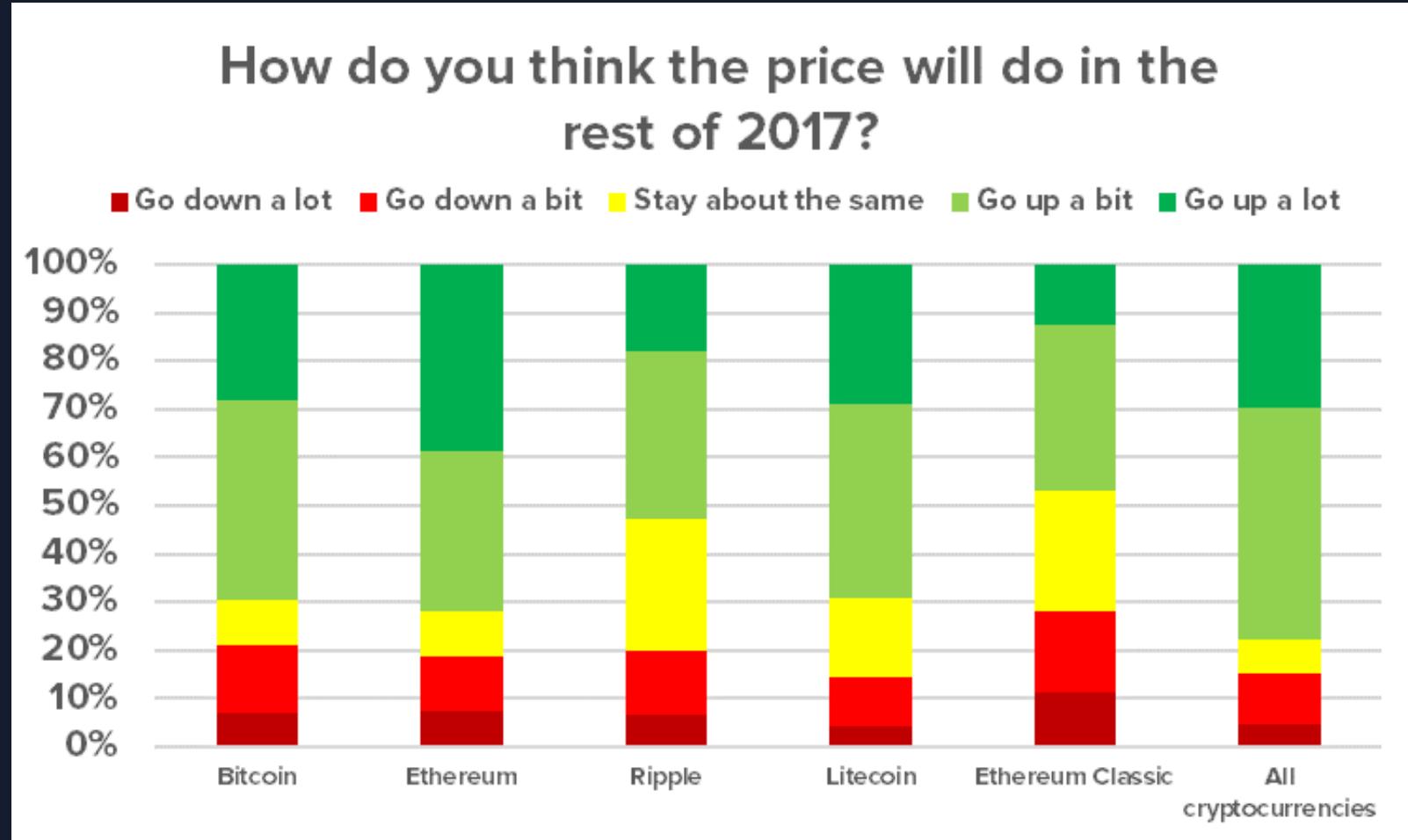
Majority Believes We Are in a Digital Asset Valuation Bubble, Largest Group Thinks Only Slightly



▲ 57.9% yes
▼ 30.0% no

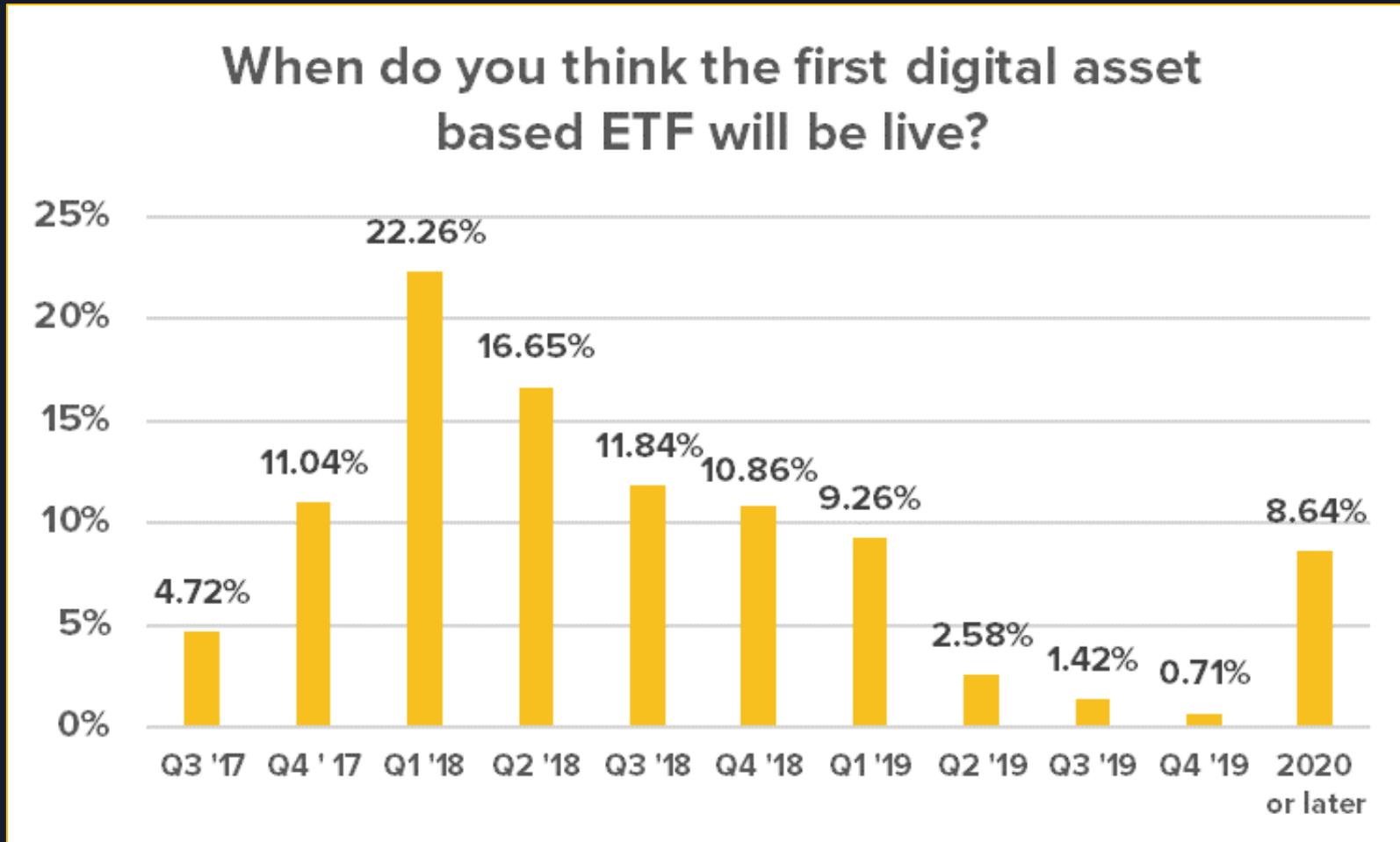
Data Source: CoinDesk's Q2 2017 Blockchain Sentiment Survey

Community is Still Bullish on Public Asset Prices For The Remainder of 2017



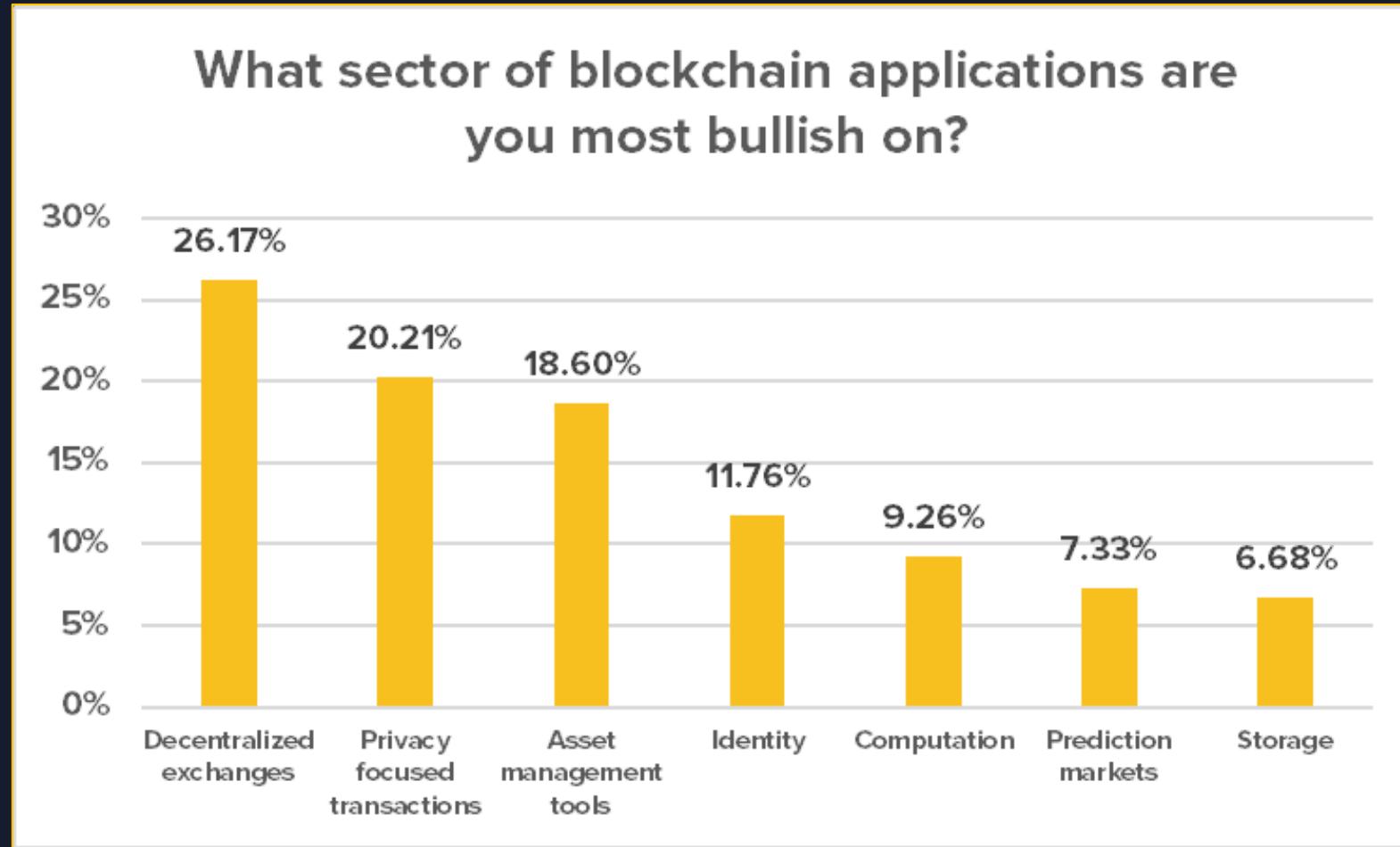
Data Source: CoinDesk's Q2 2017 Blockchain Sentiment Survey

77% Believe the First Digital Asset ETF Will be Live by the End of 2018



Data Source: CoinDesk's Q2 2017 Blockchain Sentiment Survey

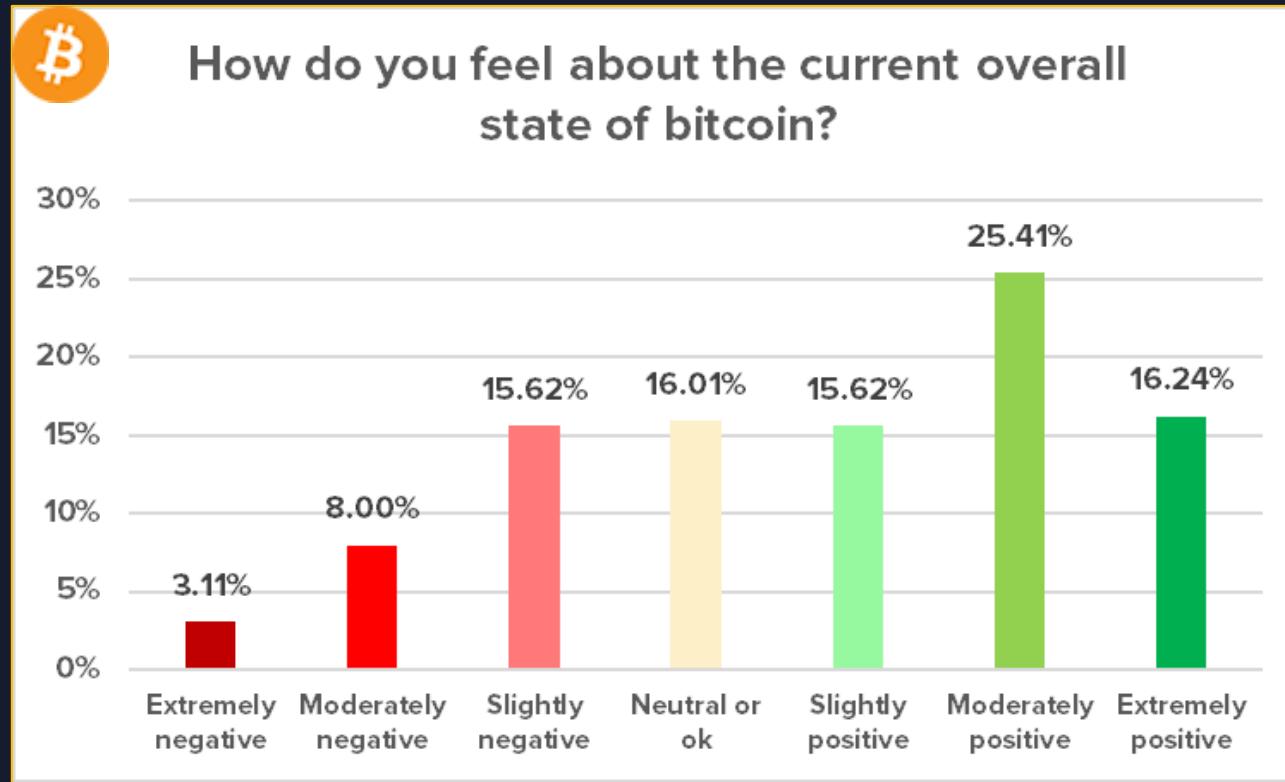
Community Most Confident in Decentralized Exchanges, Privacy Based Applications



Data Source: CoinDesk's Q2 2017 Blockchain Sentiment Survey



The Overall Sentiment Towards Bitcoin Much More Negative Than Positive, Rose in Q2 2017



▲ 57.3% positive
▼ 26.7% negative

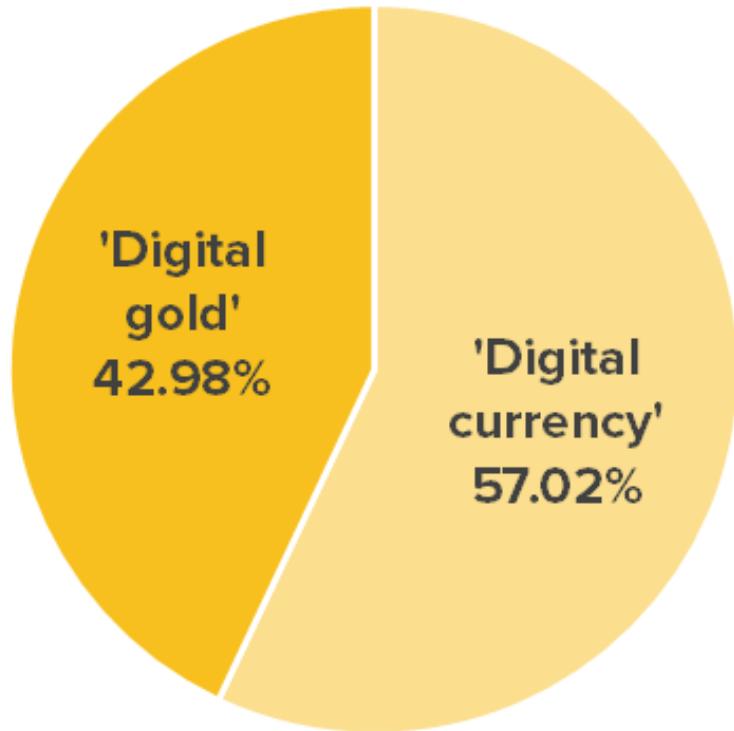
Overall state of ethereum response:
▲ 64.8% positive
▼ 22.7% negative

Q1 2017 State of Blockchain response:
▲ 49.2% positive
▼ 44.8% negative

More Now View Bitcoin as a ‘Digital Currency’ Than a Digital Gold



What do you compare bitcoin most to?

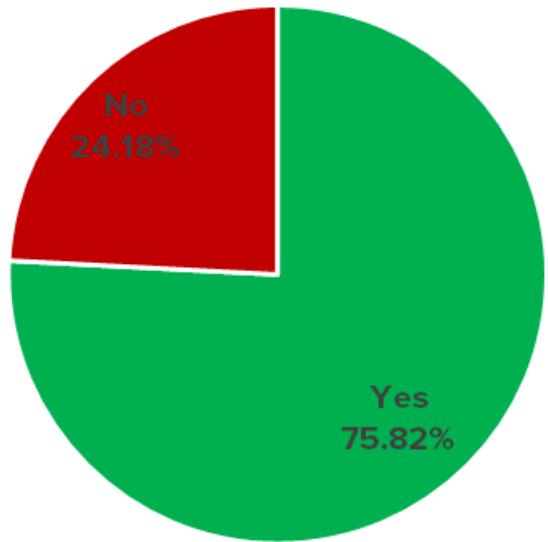


Data Source: CoinDesk's Q2 2017 Blockchain Sentiment Survey

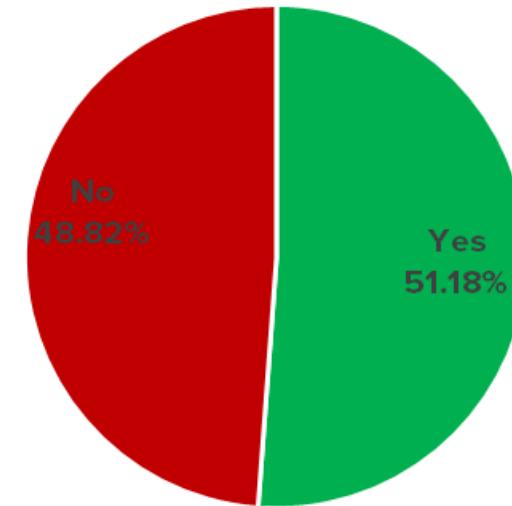
A Large Majority Believes Bitcoin Should Raise the 1 MB Limit This Year, Half Believe Bitcoin Will Split in 2017



Do you believe bitcoin's maximum block size limit should be raised above 1 MB in 2017?



Do you believe bitcoin will experience a contentious hard fork or blockchain split in 2017?

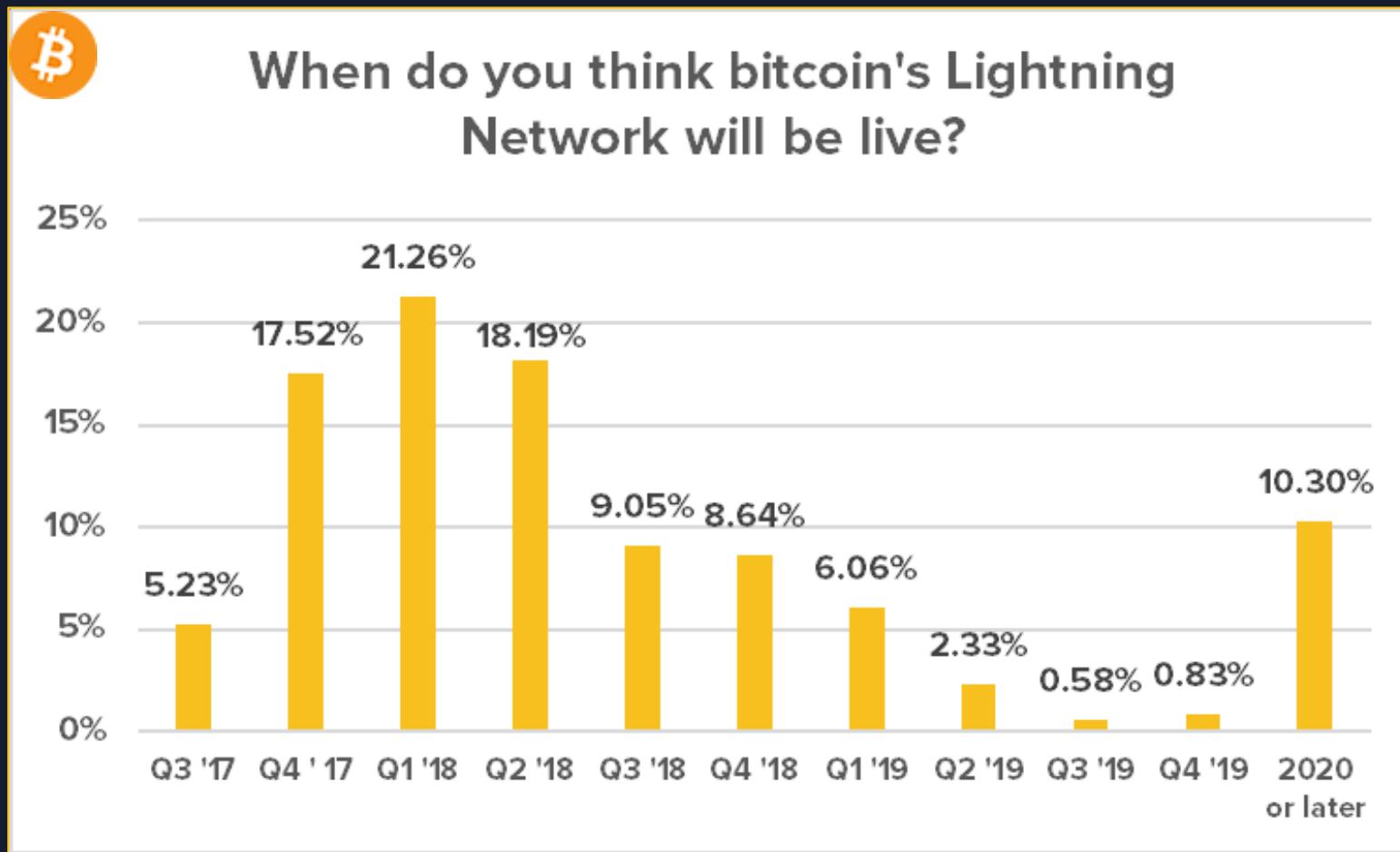


Data Source: CoinDesk's Q2 2017 Blockchain Sentiment Survey

A glimpse into Q3:

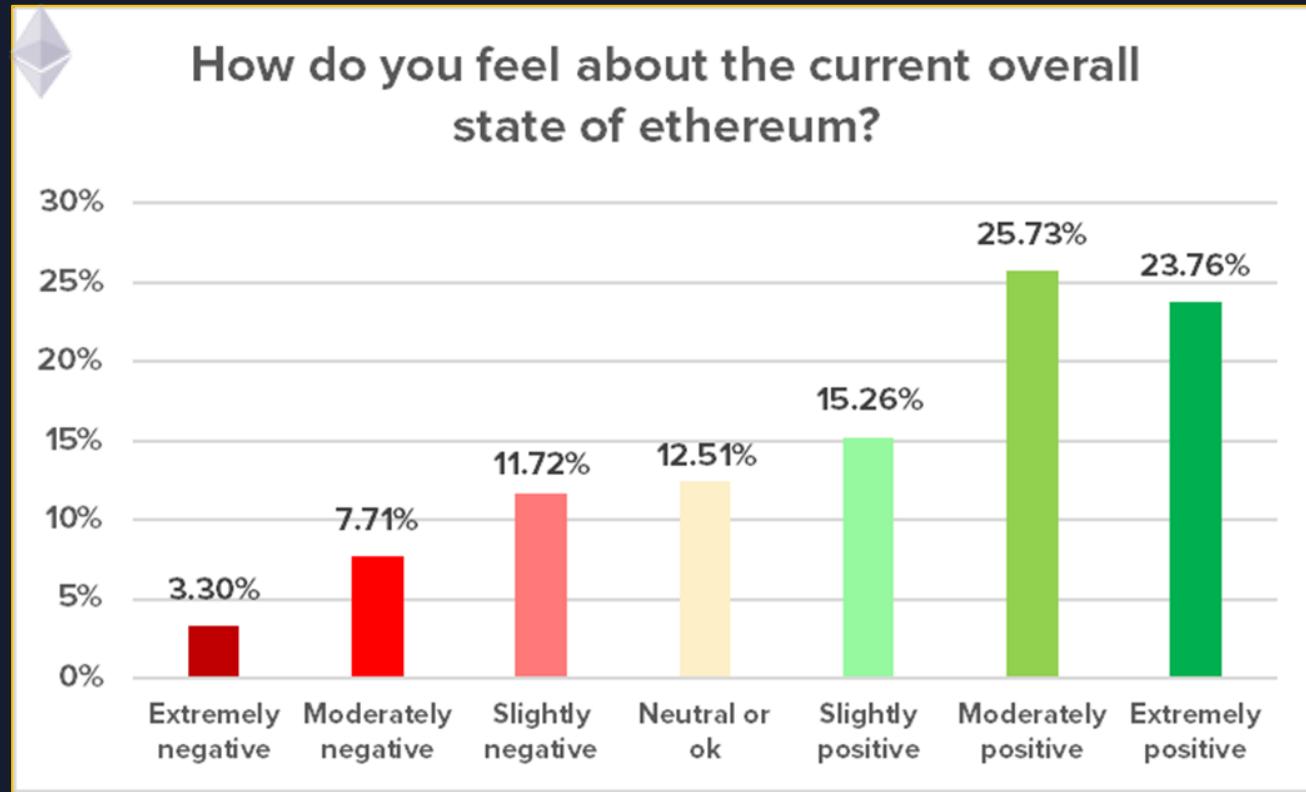
Bitcoin Cash [splits](#) bitcoin into two blockchains – one with blocks above 1 MB

80% of Respondents Believe Bitcoin's Lightning Network Will be Live by the End of 2018





The Overall Sentiment Towards Ether Fell From Astronomic Highs in Q2 2017, Still Slightly More Positive Than Bitcoin



▲ 57.3% positive
▼ 26.7% negative

Overall state of bitcoin response:
▲ 64.8% positive
▼ 22.7% negative

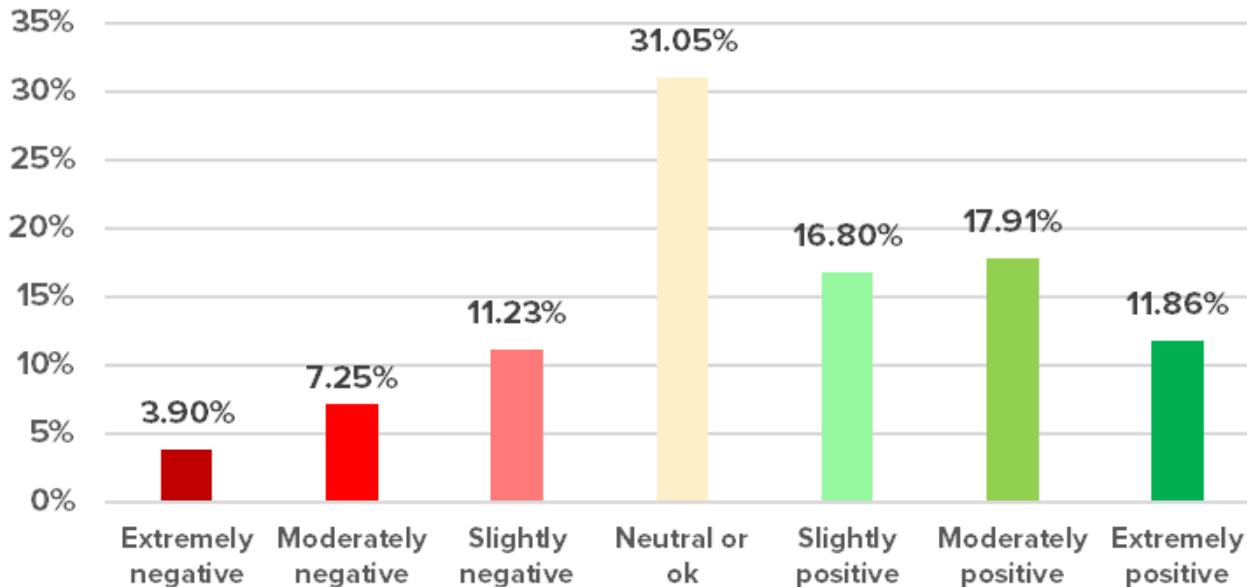
Q1 2017 State of Blockchain response:
▲ 93.8% positive
▼ 4.2% negative



Sentiment Around Ethereum Dapps Also Fell From Q1 Euphoria, Still Remain Significantly More Positive Than Negative



How do you feel about the current state of ethereum dapps?



▲ 46.6% **positive**
▼ 22.4% **negative**

Q1 2017 State of Blockchain response:

▲ 86.5% **positive**
▼ 5.4% **negative**

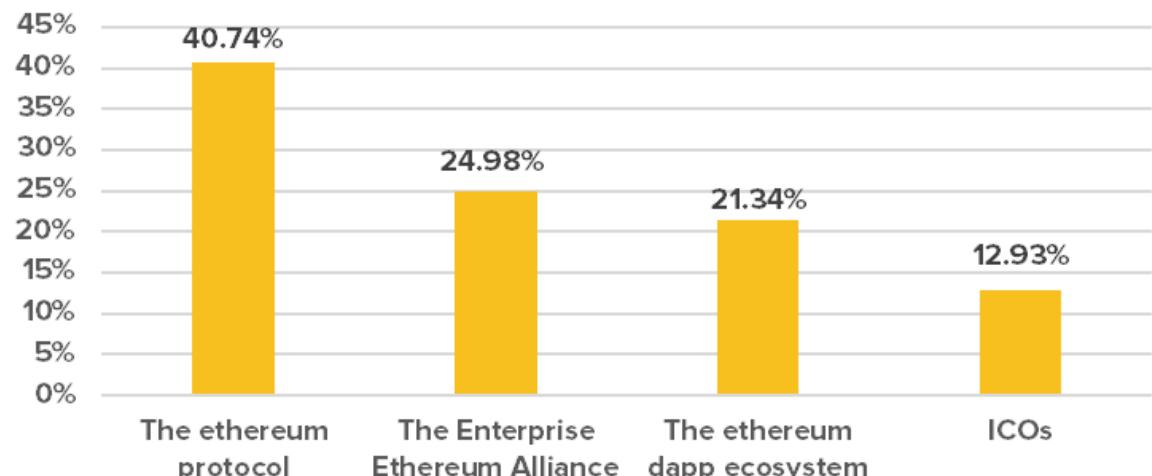
Data Source: CoinDesk's Q2 2017 Blockchain Sentiment Survey



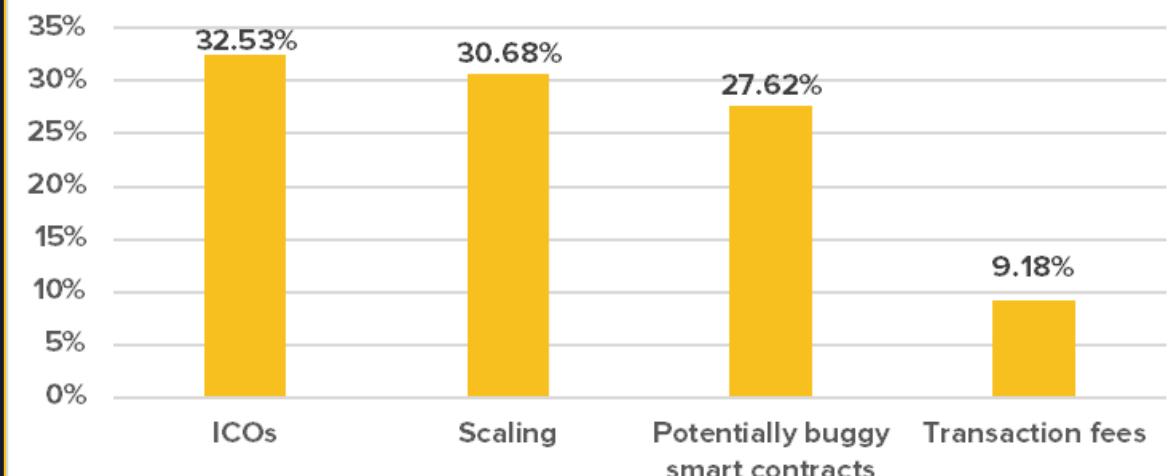
Ethereum Protocol Seen as Most Positive Part of Ecosystem Today, ICOs, Scaling, and Smart Contract Bugs Seen as Most Concerning



Which of the following do you consider to be the most positive aspect of ethereum today?



Which of the following do you consider to be the most negative aspect of ethereum today?



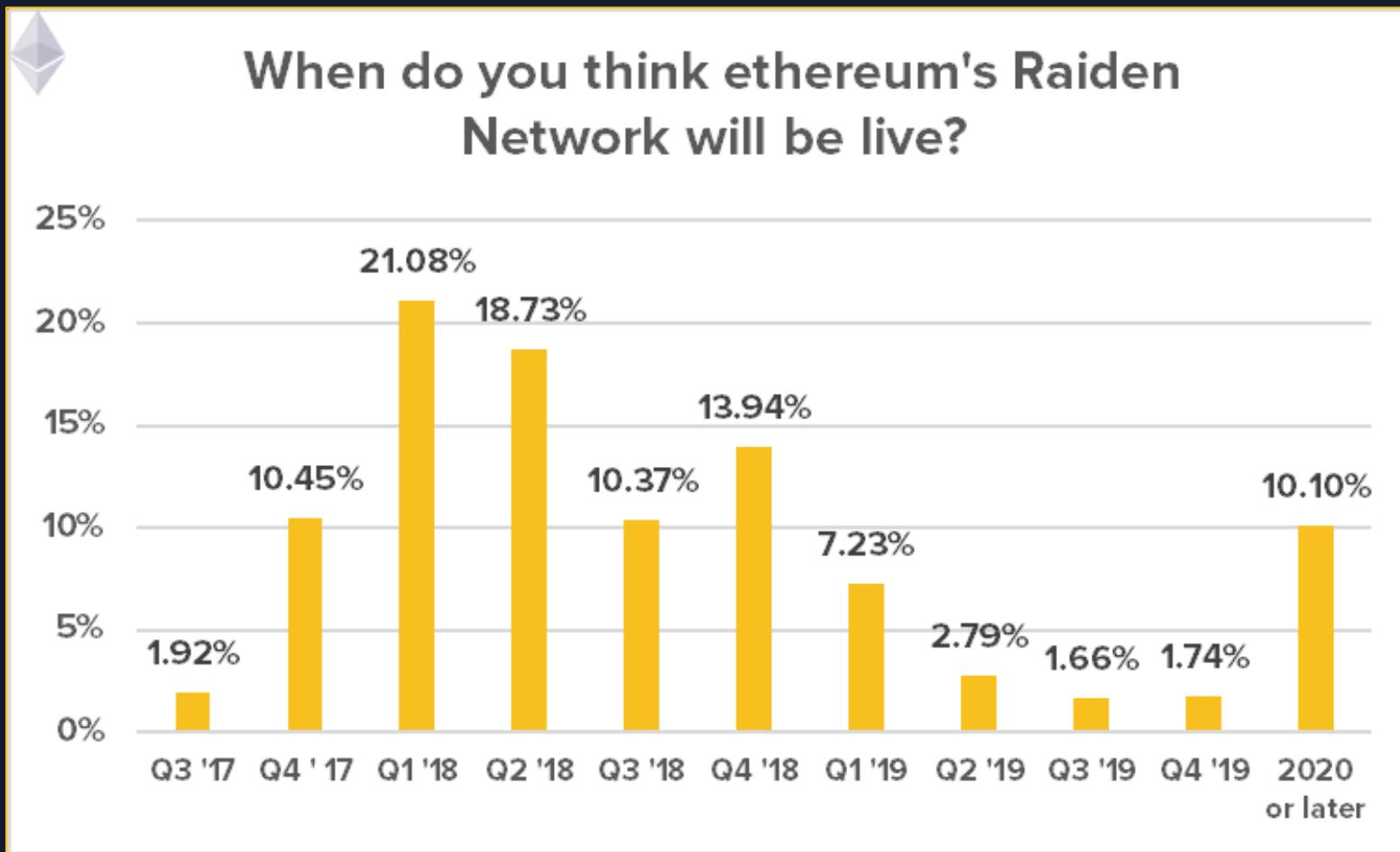
Ethereum Protocol



Ethereum ICOs

Data Source: CoinDesk's Q2 2017 Blockchain Sentiment Survey

76% of Respondents Believe Ethereum's Raiden Network Will be Live by the End of 2018



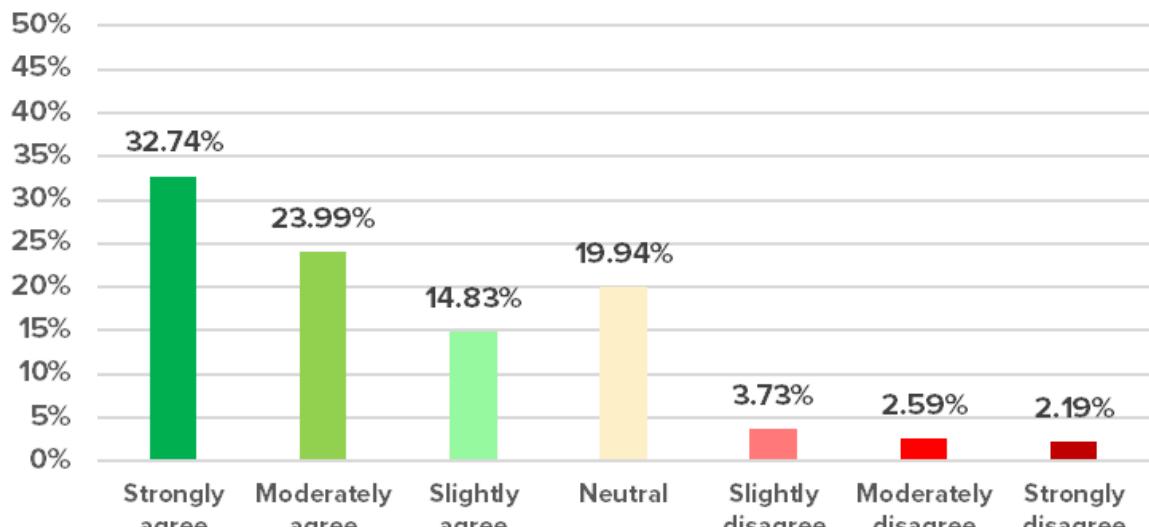
Bitcoin's Lightning Network response:
80% by the end of 2018



Both Bitcoin and Ether Mining Seen as Much Too Centralized, Perceived as Significantly Worse in Bitcoin



Do you believe bitcoin mining is currently too centralized?

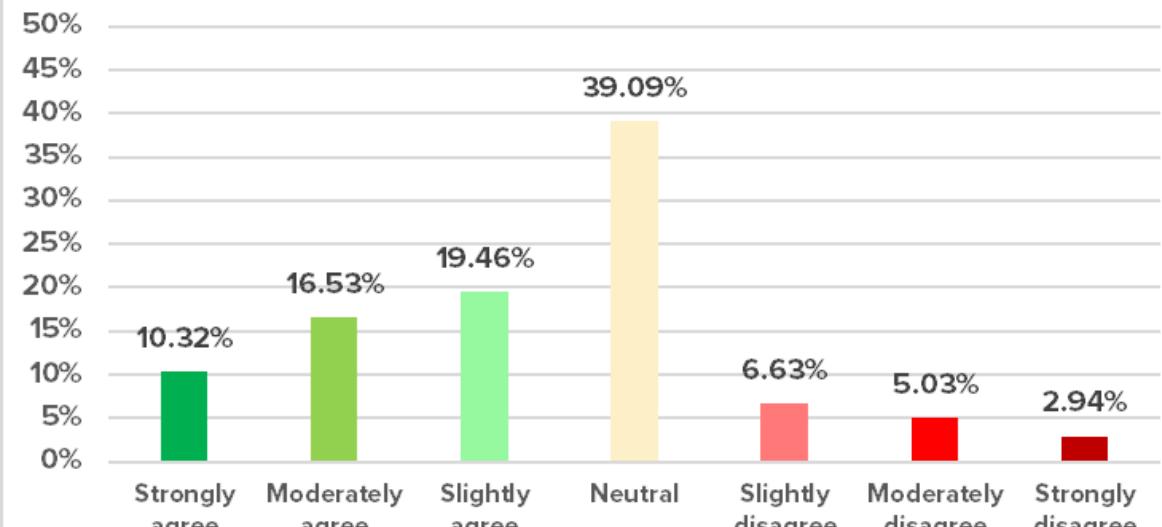


▲ 71.6% agree

▼ 8.5% disagree



Do you believe ether mining is currently too centralized?



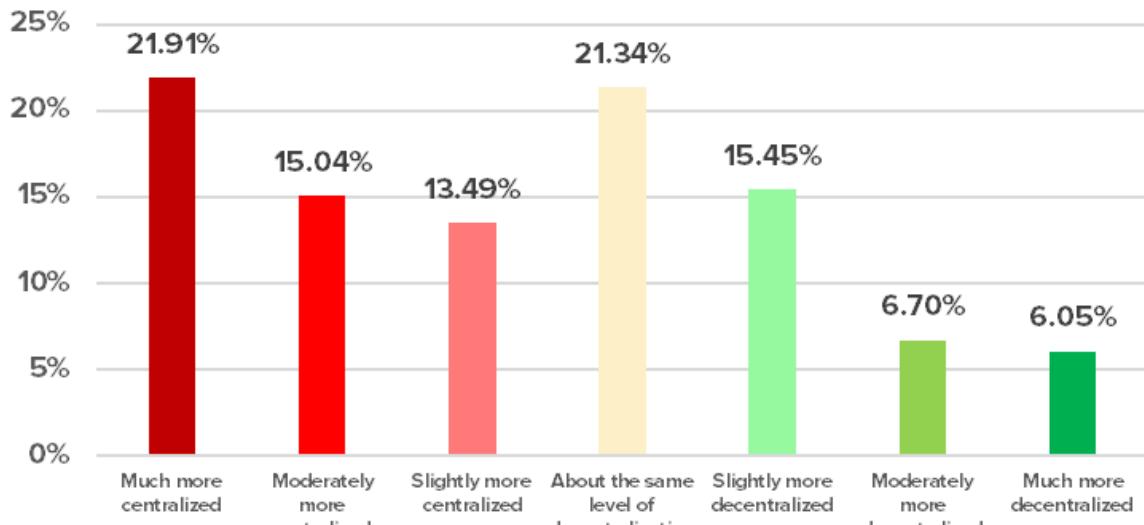
▲ 46.3% agree

▼ 14.6% disagree

Further Centralization is an Issue in Both Bitcoin and Ether, Perceived as Slightly Worse in Bitcoin



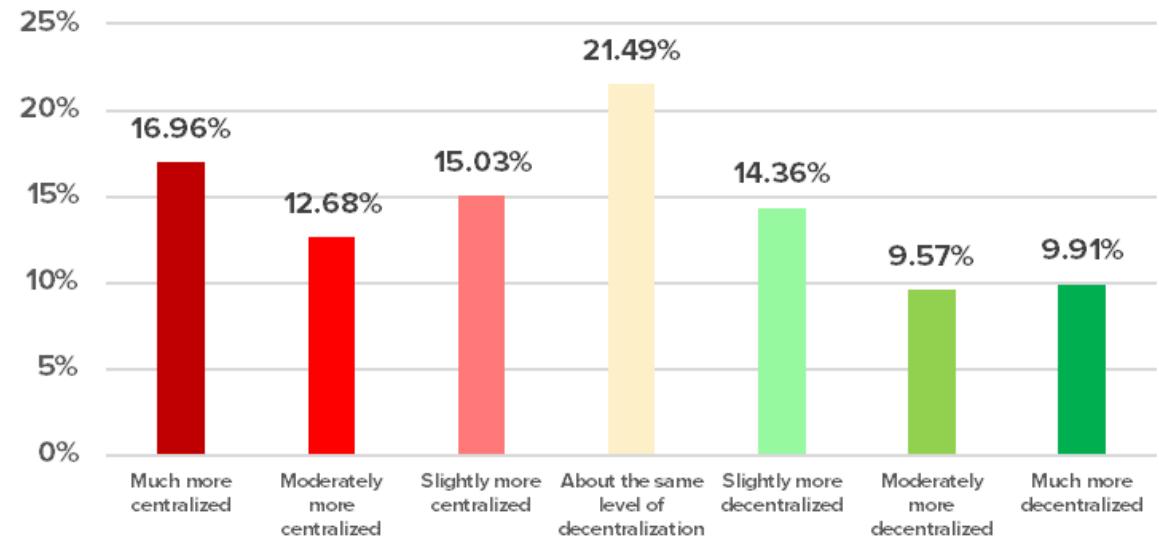
How do you believe bitcoin mining will evolve in the future?



▲ 28.2% decentralized
▼ 50.4% centralized

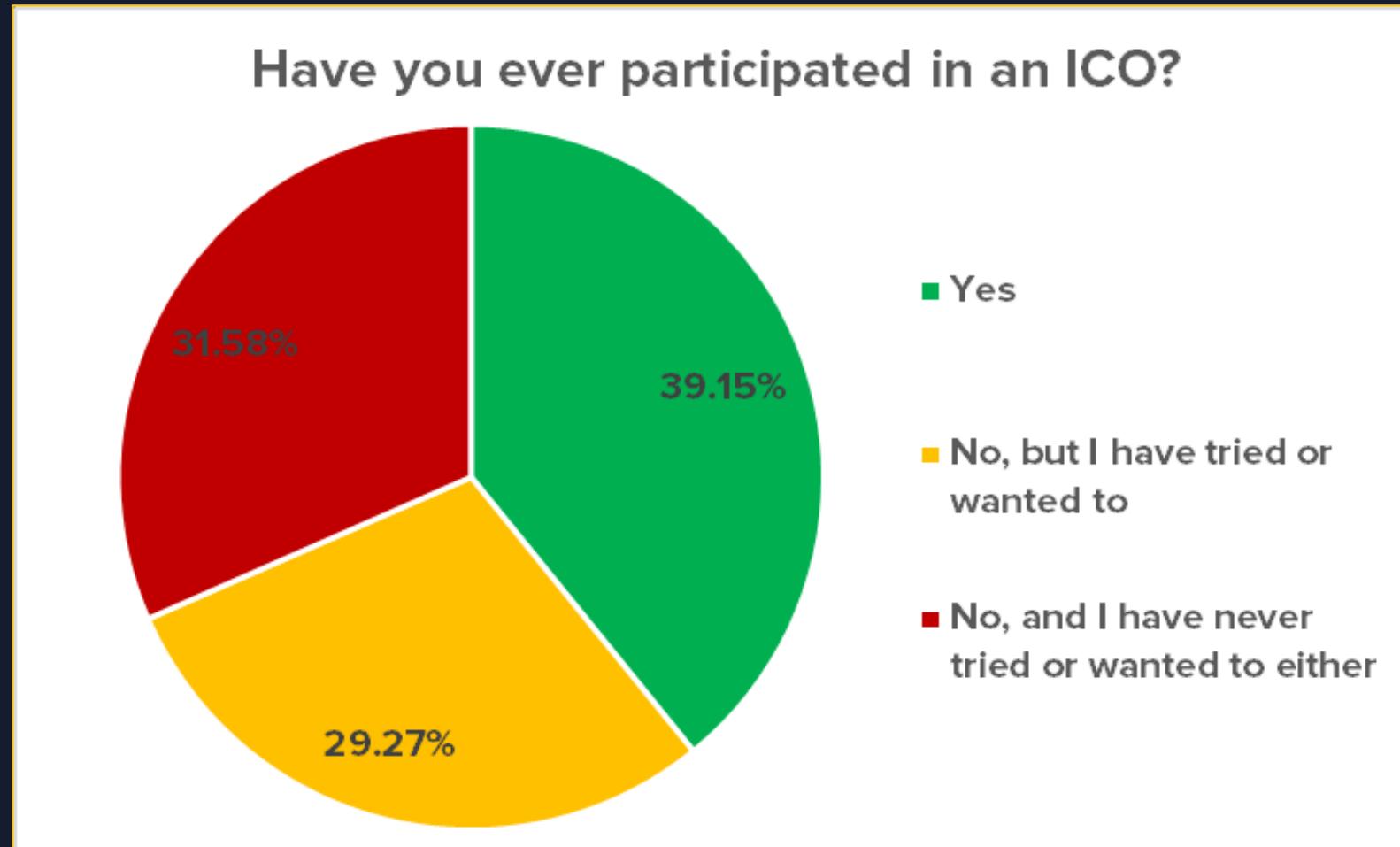


How do you believe ether mining will evolve in the future?



▲ 33.8% decentralized
▼ 44.7% centralized

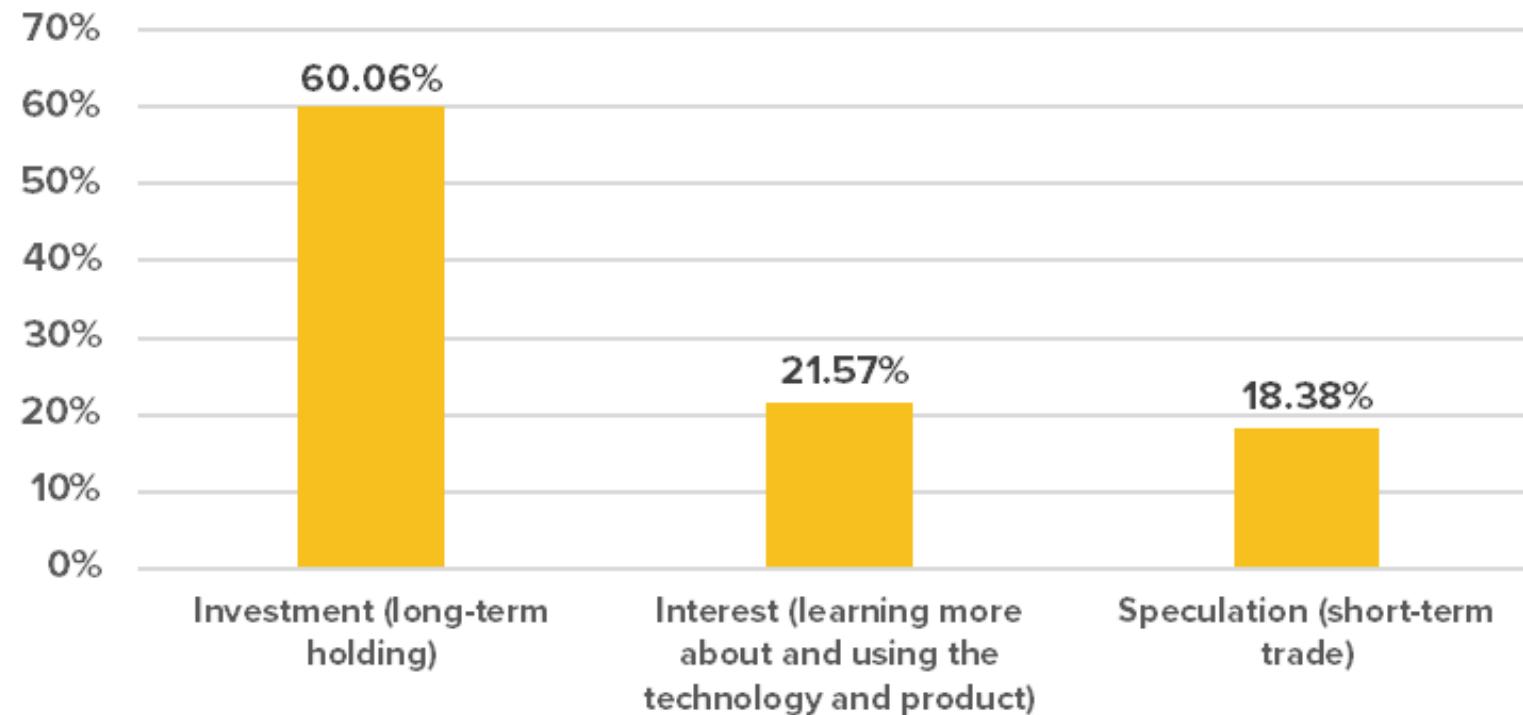
61% Had Not Participated in an ICO, But Nearly Half of Them Had Tried or Wanted To



See how sentiment around ICOs has shifted since our [ICO sentiment study](#) we conducted alongside our [Q4 2016 State of Blockchain](#)

Long-Term Investment Dominates Rationale for ICO Participation

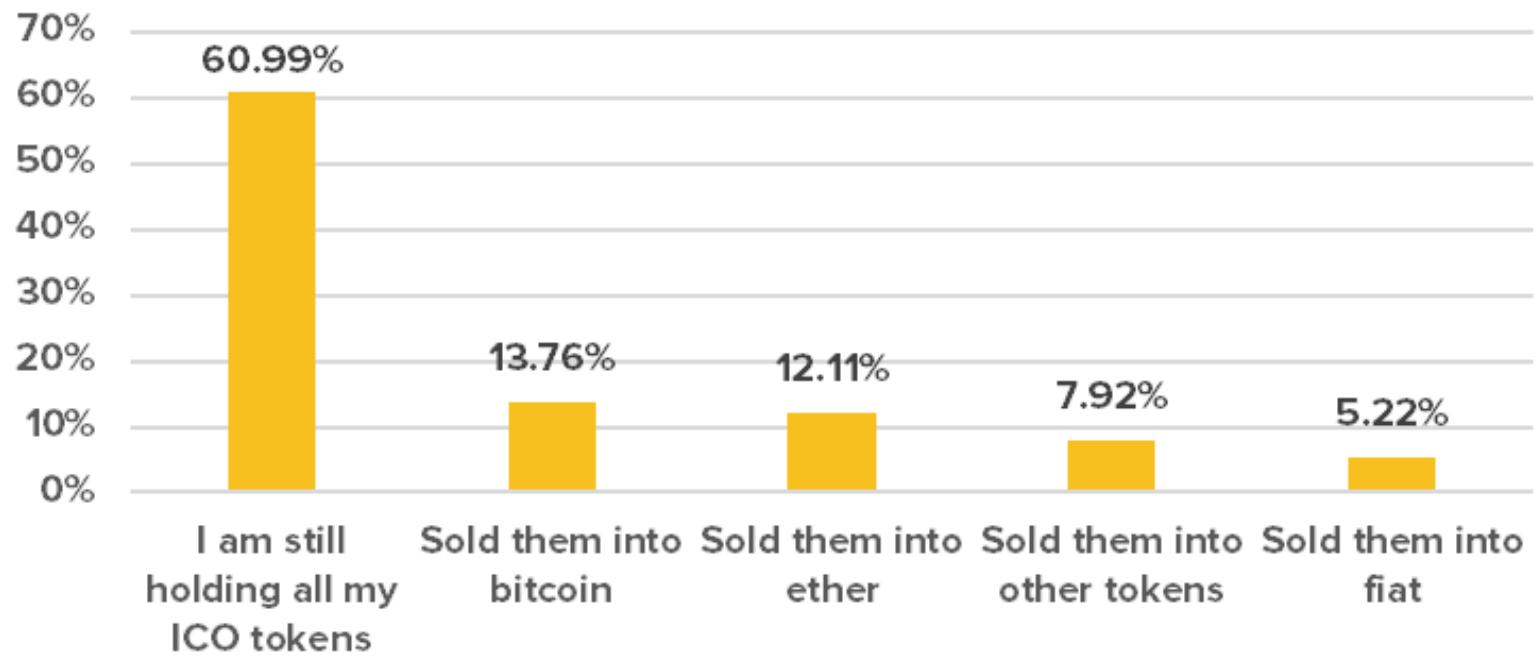
If you have taken part in an ICO, what was the primary reason for your participation?



See how sentiment around ICOs has shifted since our [ICO sentiment study](#) we conducted alongside our [Q4 2016 State of Blockchain](#)

Majority of ICO Participants Still Holding Onto All of Their Tokens, Smallest Group Sold for Fiat Currency

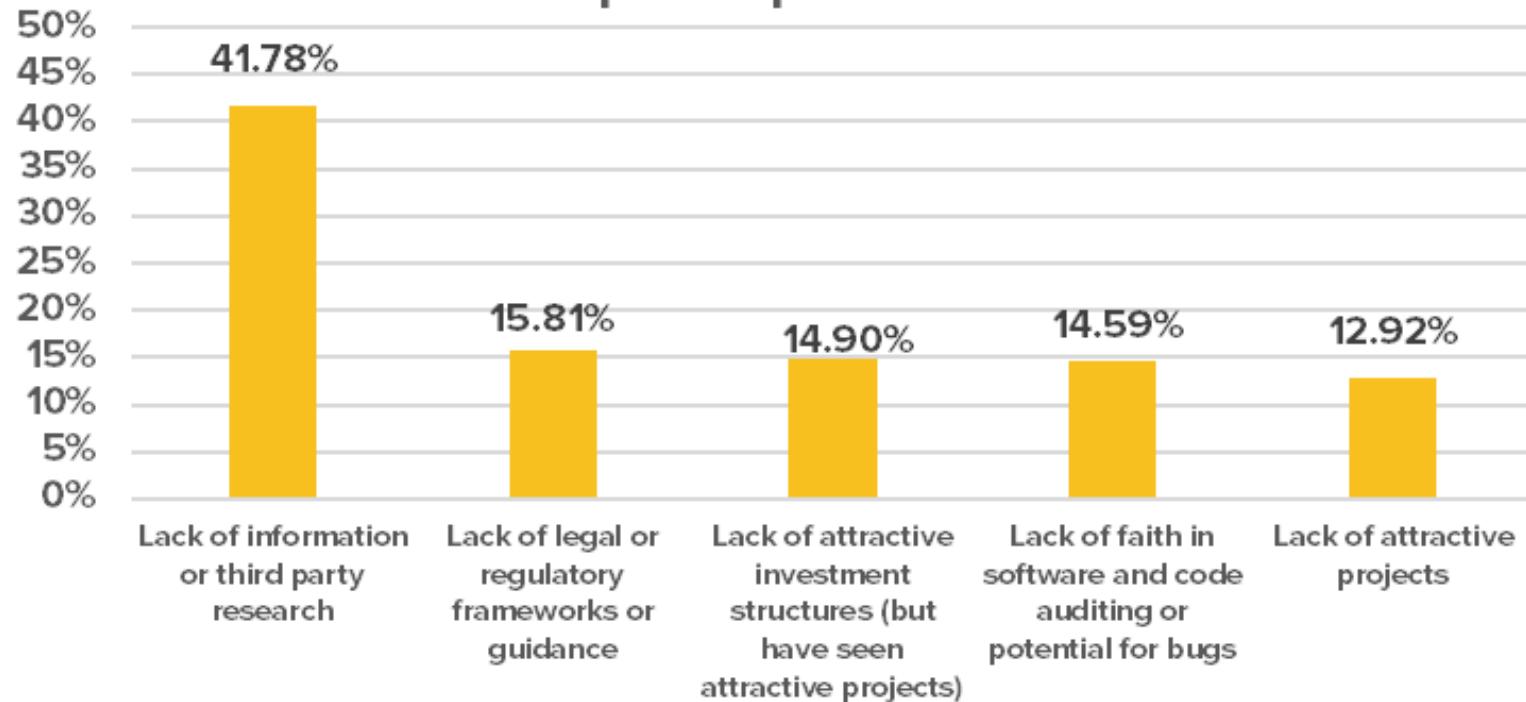
If you have taken part in an ICO, what have you done with your tokens since (select all that apply)?



See how sentiment around ICOs has shifted since our [ICO sentiment study](#) we conducted alongside our [Q4 2016 State of Blockchain](#)

Lack of Information and Third Party Research Has Kept Out the Most CrowdSale Participants

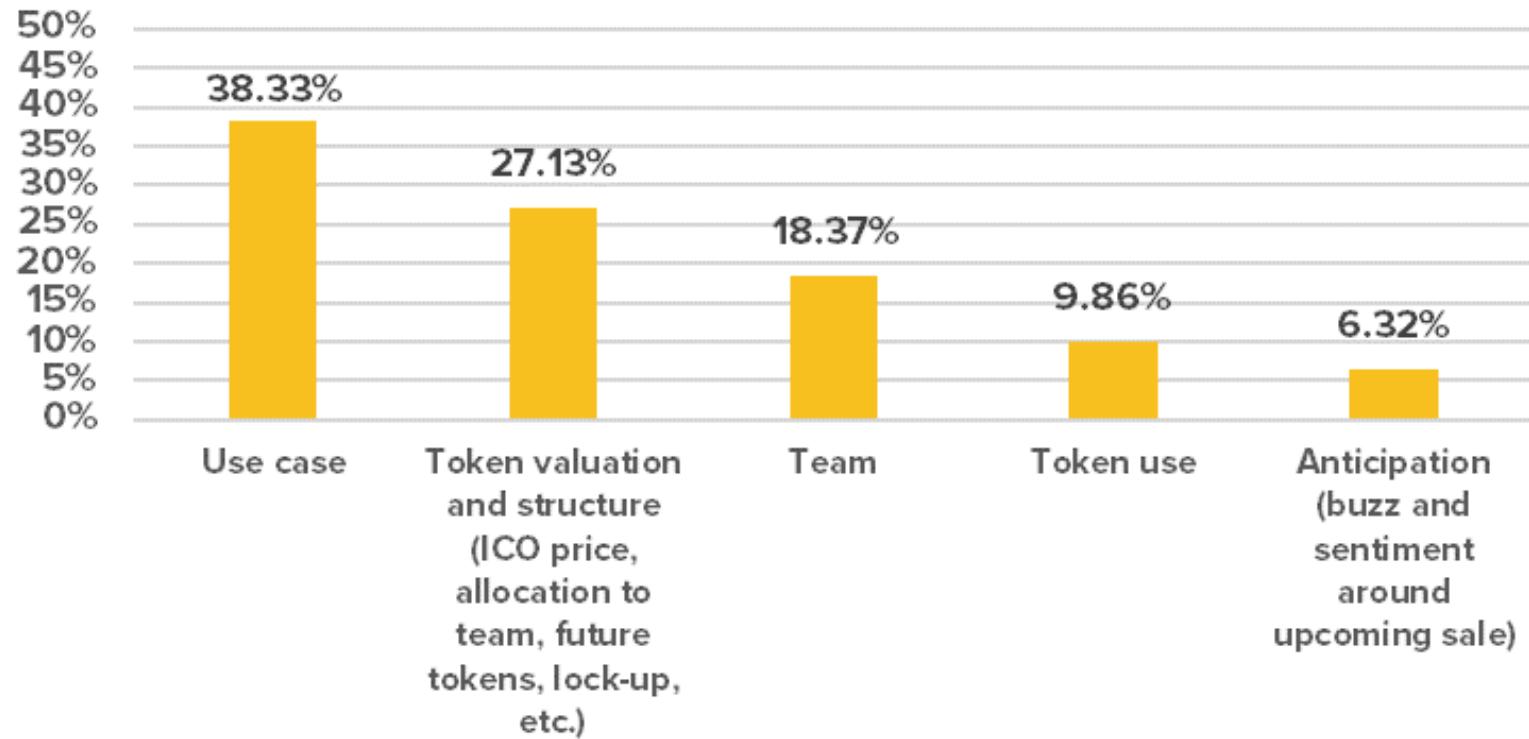
If you have not taken part in an ICO, what has been the primary reason for your lack of participation?



See how sentiment around ICOs has shifted since our [ICO sentiment study](#) we conducted alongside our [Q4 2016 State of Blockchain](#)

ICO Participants Look to Use Case as Primary Driver of ICO Analysis

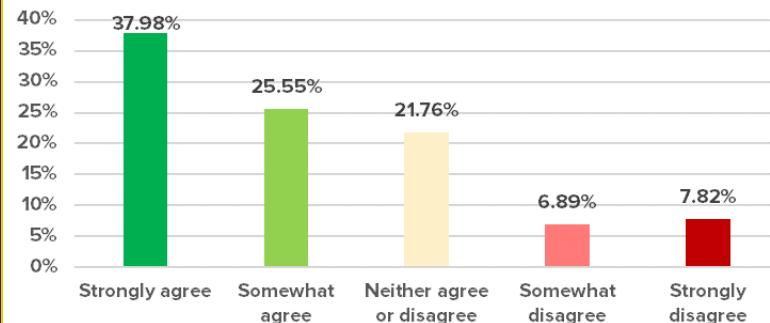
What is the most important factor when analyzing a potential blockchain ICO?



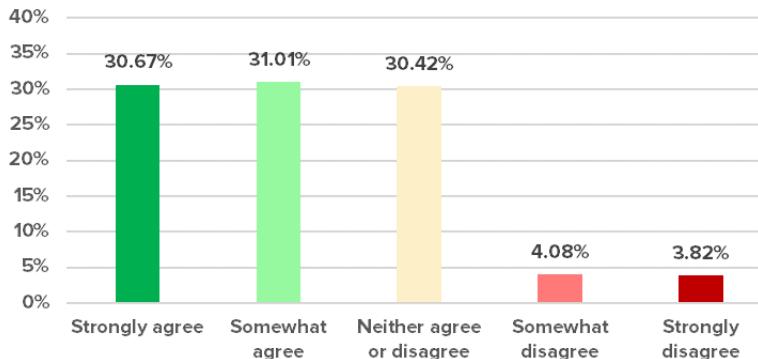
See how sentiment around ICOs has shifted since our [ICO sentiment study](#) we conducted alongside our [Q4 2016 State of Blockchain](#)

Community Believes Blockchain Projects Should Structure ICOs With a Cap, in Several Rounds, and With Other Forms of Fundraising in Mind

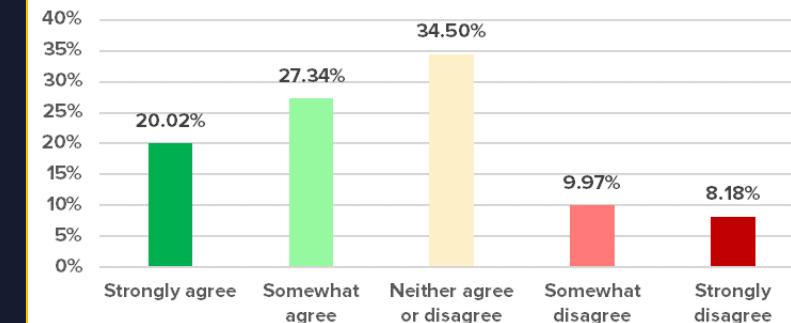
I believe token issuers should cap ICO rounds as opposed to raising as much money as possible in one round.



I believe token issuers should plan for several blockchain token sales.



I believe new blockchain projects should consider mixing traditional investment funding and ICOs.



▲ 63.5% agree

▼ 14.7% disagree

▲ 61.7% agree

▼ 7.9% disagree

▲ 47.4% agree

▼ 18.2% disagree

Data Source: CoinDesk's Q2 2017 Blockchain Sentiment Survey

Notes: 'Cap' meaning not raising more than some amount like \$10m or 100k ETH in a sale

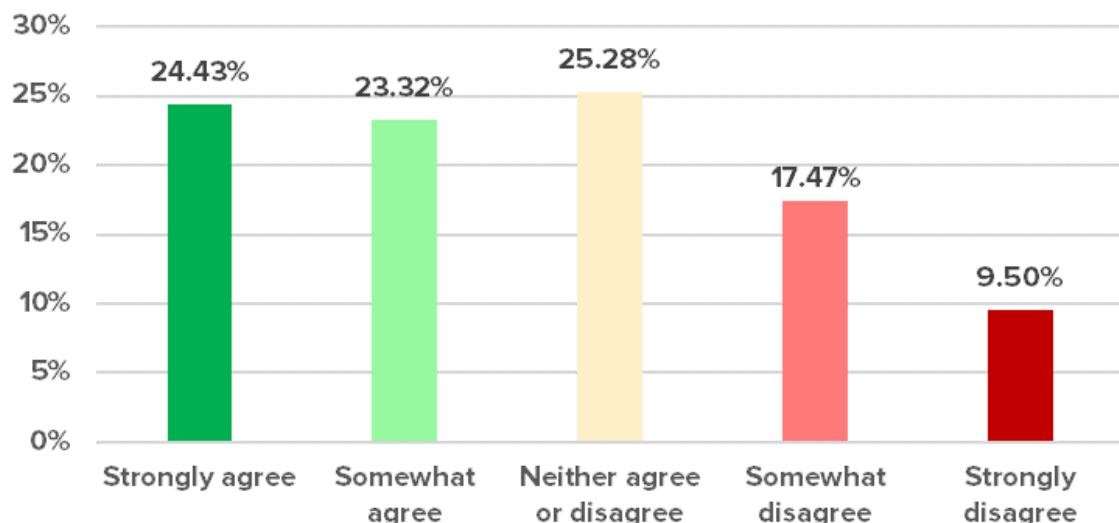
'Several token sales' meaning similar to startups raising traditional funding in rounds like "Seed", "Series A", "Series B", etc.

'Traditional investment funding' meaning sources like venture capital firms and accredited angel investors

See how sentiment around ICOs has shifted since our [ICO sentiment study](#) we conducted alongside our [Q4 2016 State of Blockchain](#)

The Community is Surprised by ICO Funding Overtaking VC, Strongly Believe it Would Not Have Happened Without Public Token Rally

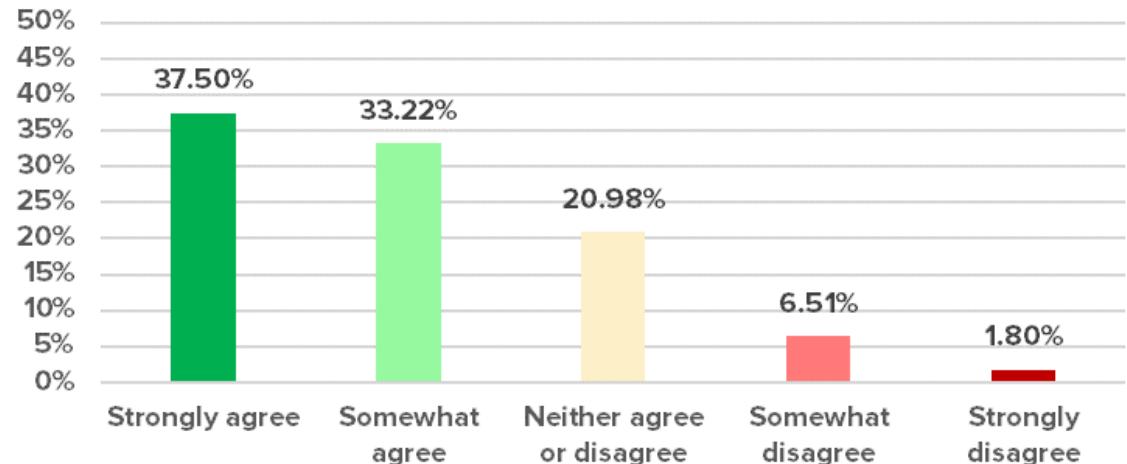
I am surprised that blockchain ICOs have outpaced VC funding thus far in 2017.



▲ 47.8% agree

▼ 27.0% disagree

Without the price rally in cryptocurrencies early this year, blockchain ICOs would not have raised more than VC.

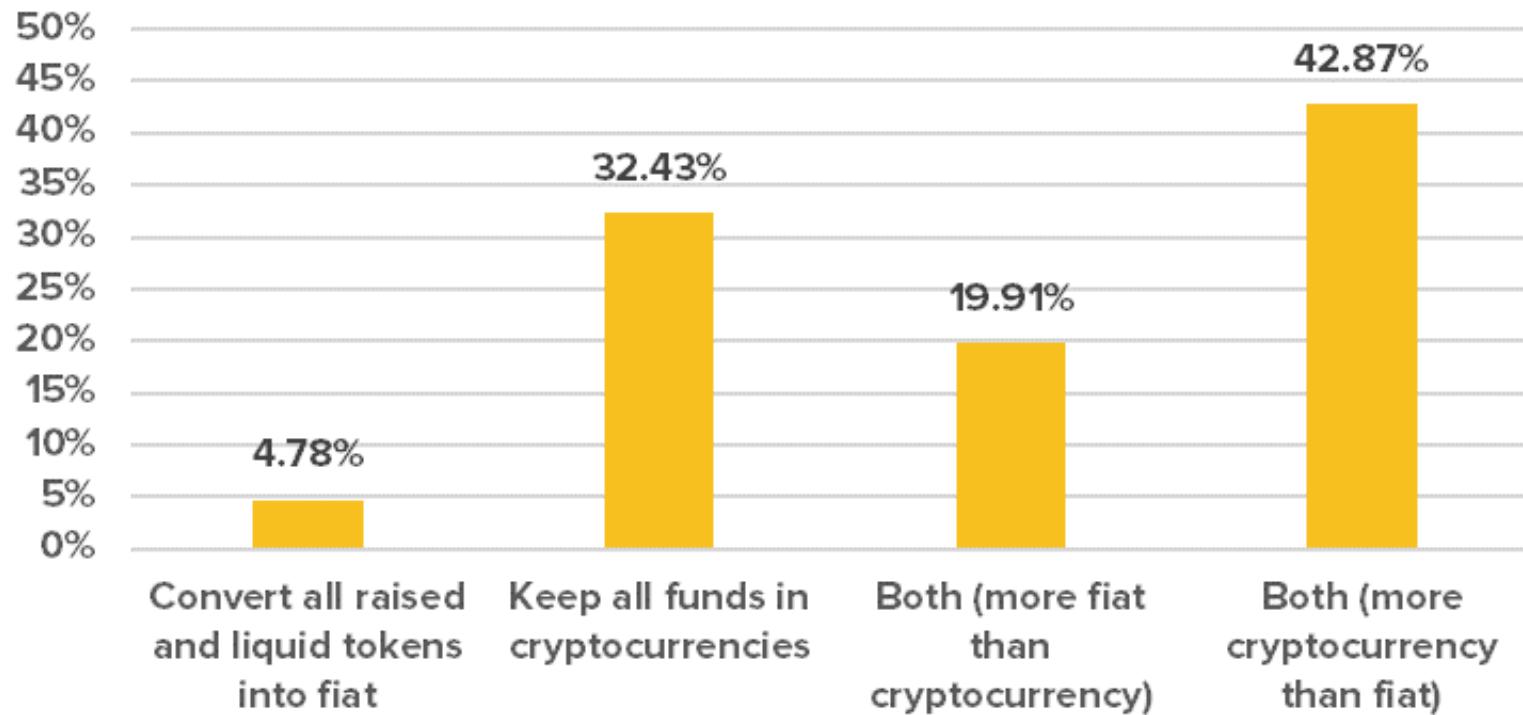


▲ 70.7% agree

▼ 8.3% disagree

Community Believes Issuers Should Keep Funds Raised in ICOs in Cryptocurrencies, Rather than Sell to Fiat

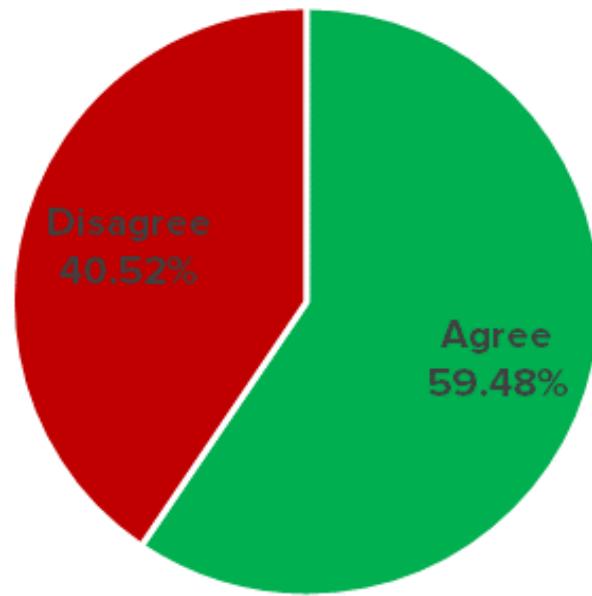
How do you think ICO issuers should hold the funds raised in a token sale?



See how sentiment around ICOs has shifted since our [ICO sentiment study](#) we conducted alongside our [Q4 2016 State of Blockchain](#)

Community Believes Institutional Capital Will Control ICO Rounds Over Retail Investors in the Future

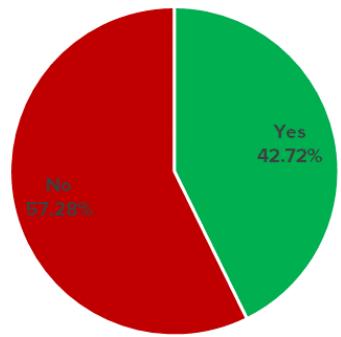
I believe "institutional" money will control blockchain ICOs over "retail" investors in the future.



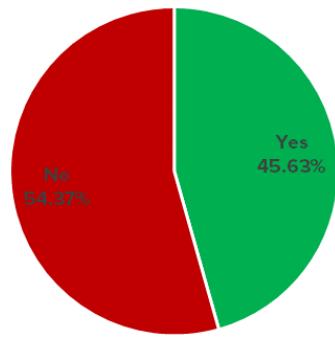
See how sentiment around ICOs has shifted since our [ICO sentiment study](#) we conducted alongside our [Q4 2016 State of Blockchain](#)

The Community Has Mixed Feelings on How Governments Will Treat and Interact With ICOs

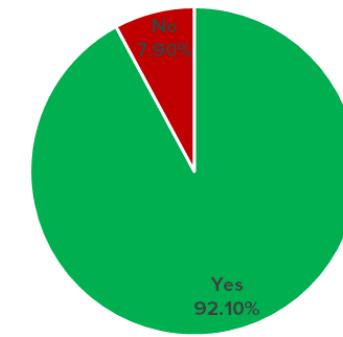
Do you believe blockchain ICOs should be regulated like securities?



Do you believe the SEC will ever take action against any past ICO?



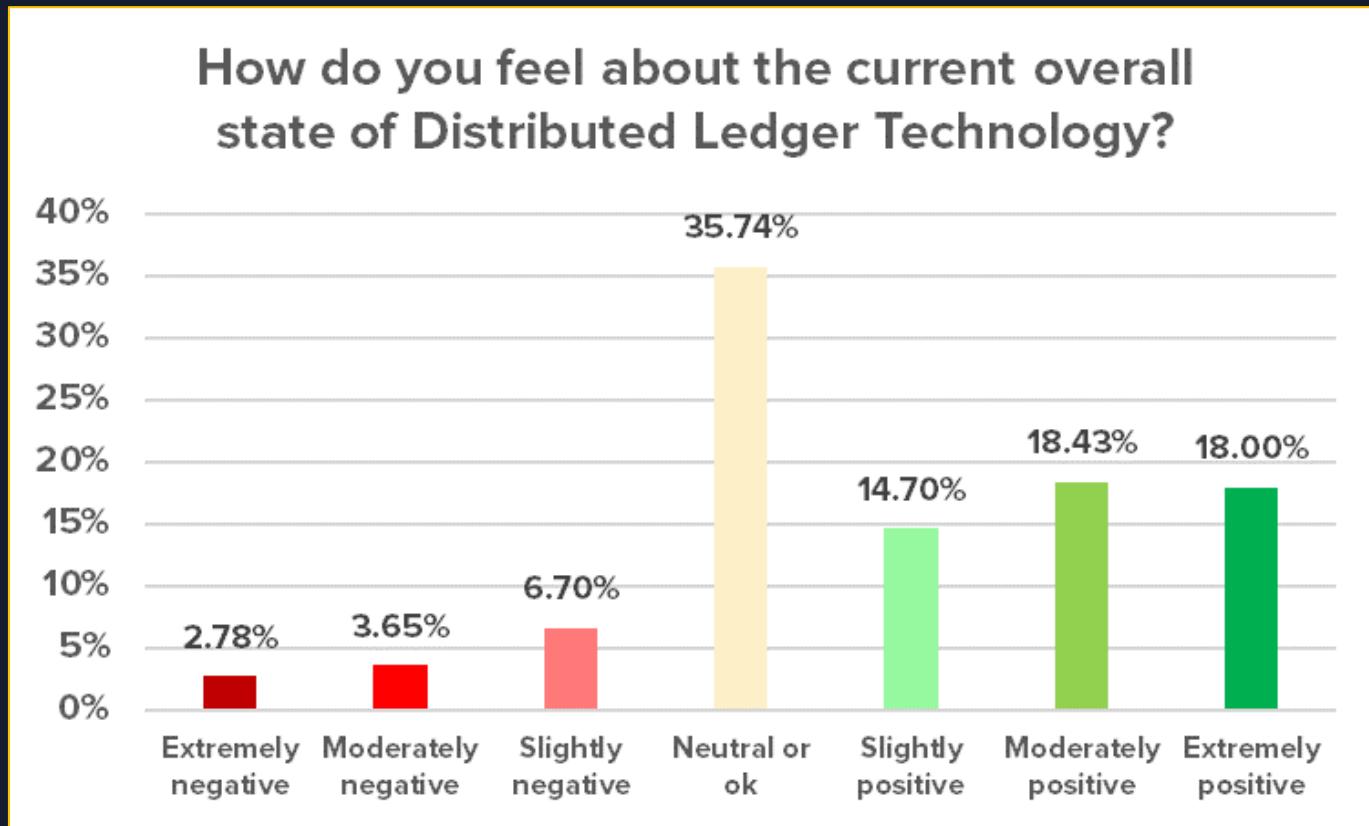
Do you believe regulators will attempt to bring ICOs into a regulatory regime?



A glimpse into Q3:

The SEC [declares](#) The DAO tokens were securities

The Community Feels Largely Positive About the Current State of DLT, However Largest Group Feels Just ‘Neutral’ or ‘OK’

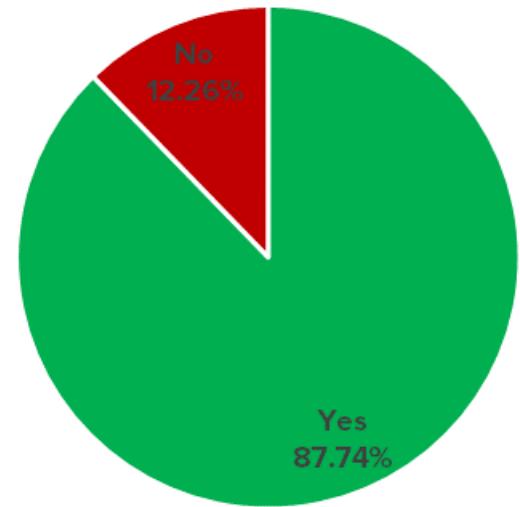


▲ 51.1% **positive**
▼ 13.1% **negative**

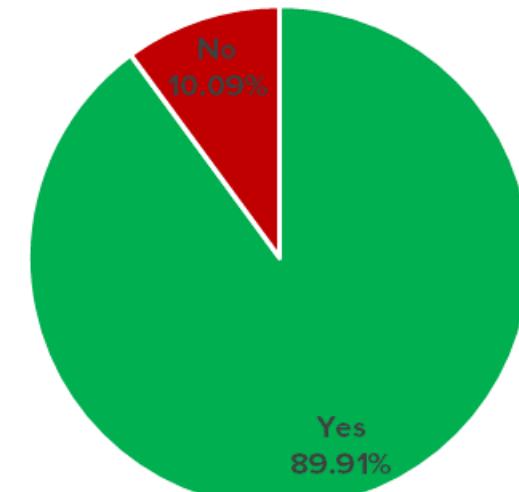
Often called ‘DLT’, ‘permissioned’ or
‘enterprise’ blockchains

The Community Overwhelmingly Believes The World is in for a Future of Bank and Government Backed Digital Assets

Do you believe banks will ever issue their own form of digital asset?



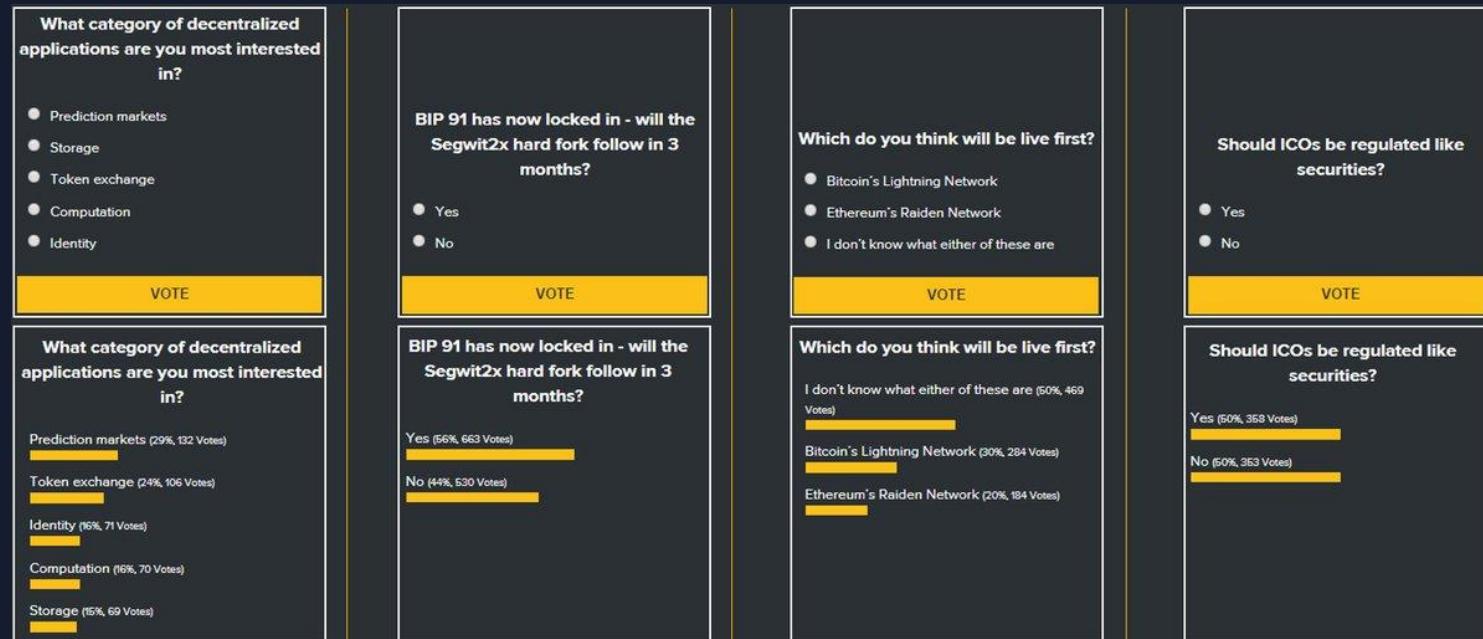
Do you believe governments will ever issue their own form of digital asset?





New CoinDesk ICO Website Tool: Sidebar Surveys

Like surveys? We just started featuring them right in the sidebar of all [our website](#) pages!



After you've answered a question, you can see the current results!

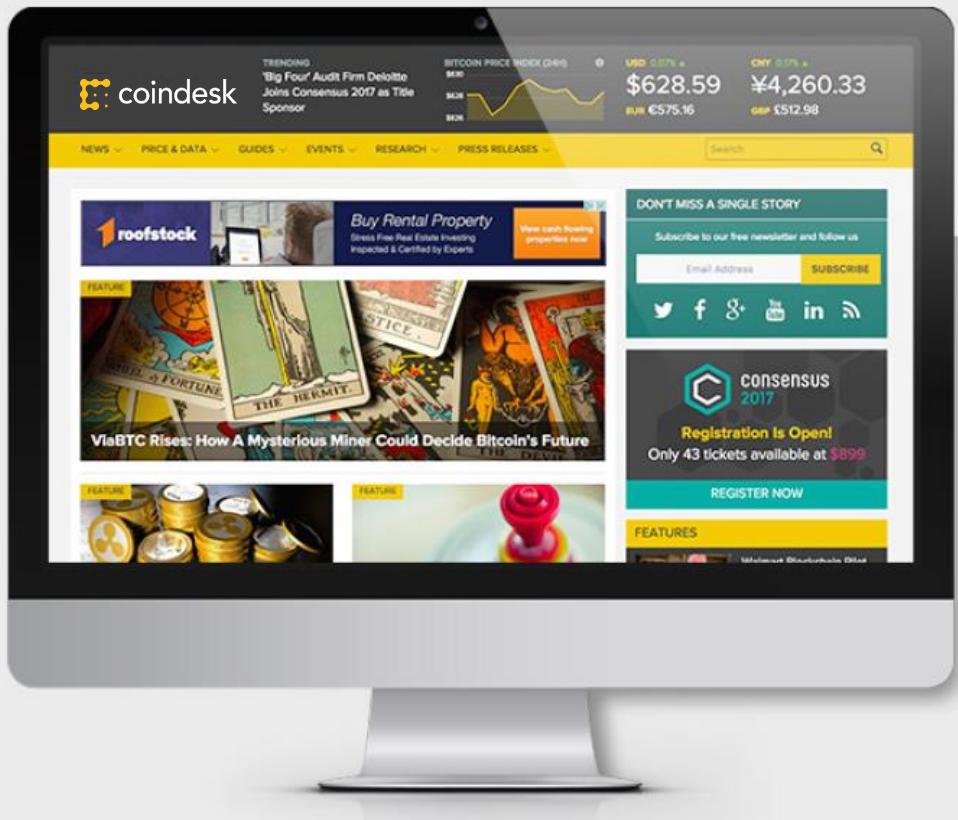


6

COINDESK



CoinDesk – News, Events, Research and Data for Blockchain Technology



Headquarters: Times Square, New York City

News: 25 million online readers since 2013

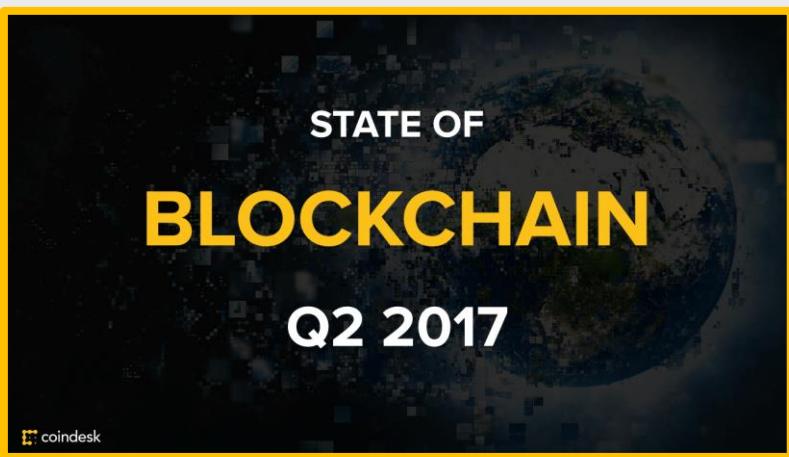
Events: 3,000+ attended our 2017 [Consensus](#) and [Construct](#) conferences in New York City and San Francisco

Data: Industry reference points including [Bitcoin](#) and [Ether](#) prices and [Venture Capital](#) and [ICO](#) databases

Paid Research: '[Blockchains for Insurance](#)' and '[Advances in Blockchain Privacy and Confidentiality](#)' launched YTD

Data Source: [CoinDesk](#)

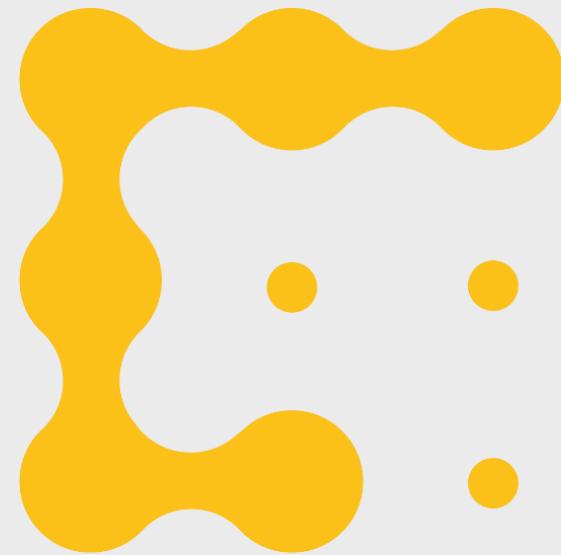
About the 'State of Blockchain'



For three years, CoinDesk has analyzed the 'State of Blockchain' in our quarterly industry overview reports

We cover:

- **Technical trends** within the top open-source developer communities
- **Major product updates** from well-funded startups
- **Digital currency market data**, utilization rates, public sentiment and network performance metrics
- **Enterprise adoption** rates and new proofs-of-concept
- **Venture capital**, corporate, and public investment trends
- **Public policy** updates from around the globe



coindesk

- Find out more at www.coindesk.com
- Follow us on Twitter: [@CoinDesk](https://twitter.com/CoinDesk)
- Subscribe to our [email newsletters](#) for the latest blockchain news
- If you have data you think should be included in future 'State of Blockchain' reports, email stateofblockchain@coindesk.com
- We also welcome any general feedback you have on the report



construct



consensus



:invest

- **We are the leading events firm in blockchain**
- Our annual [Construct](#) and [Consensus](#) events have attracted thousands of entrepreneurs, investors, executives, regulators, journalists and more to [San Francisco](#) and [New York City](#)
- Join us in November for the debut of our newest event, [Consensus Invest!](#)



6A

RESEARCH FRAMEWORK



Defining The Blockchain Technology Market

A **public blockchain** is an internet protocol that manages the distribution of provably unique data that:

- Acts as a unit of account for transactions on that ledger
- Incentivizes early adopters and developers to use, support and verify the ledger without the need for a trusted intermediary

An **enterprise blockchain** is a distributed ledger that provides:

- Consensus via trusted intermediaries, making digital currencies unnecessary
- Solutions to clients who wish to use cryptographic databases managed and shared by trusted parties

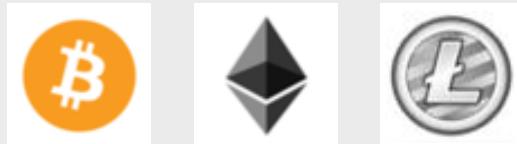
Many companies employ **hybrid** models where they:

- Build on public blockchain infrastructure
- Provide technology for permissioned networks

The Internet-Intranet Comparison

We believe both public and enterprise blockchains have useful applications,
much like the Internet and corporate intranets

PUBLIC BLOCKCHAINS



public (inter-)
The internet



ENTERPRISE BLOCKCHAINS



private (intra-)
Intranets & IT



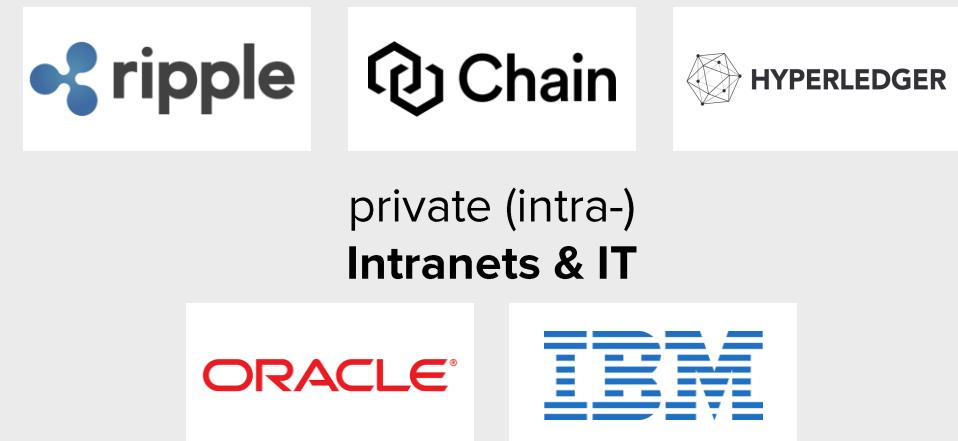


The State of Blockchain Focuses Primarily on Public Blockchains; Enterprise Data is More Opaque

The majority of development work to date has been done using open-source tools and public blockchains like bitcoin and ethereum



ENTERPRISE BLOCKCHAINS





'Public' (Open) vs 'Enterprise' (Permissioned) Blockchains: Generalized Features Comparison

PUBLIC		ENTERPRISE
ACCESS	Open read and write	Permissioned write and/or read
SPEED	Slower	Faster
SECURITY	Open network	Approved participants
IDENTITY	Anonymous or pseudonymous	Known identities
ASSET	Native assets	Any asset

Data Sources: [Chain](#), [Chris Skinner's blog](#)



Strengths and Weaknesses of Public Blockchains

We believe public blockchains will have the greatest impact on developing economies (reduced need for trust) and the connected device, IoT economy (immutability, auditability)

STRENGTHS

Immutable ledger
Relatively fast settlement time (e.g., 10 minutes or less)
Reduced security risks associated with centralization-trusted third party
Easy to audit
Reduced need for trust

WEAKNESSES

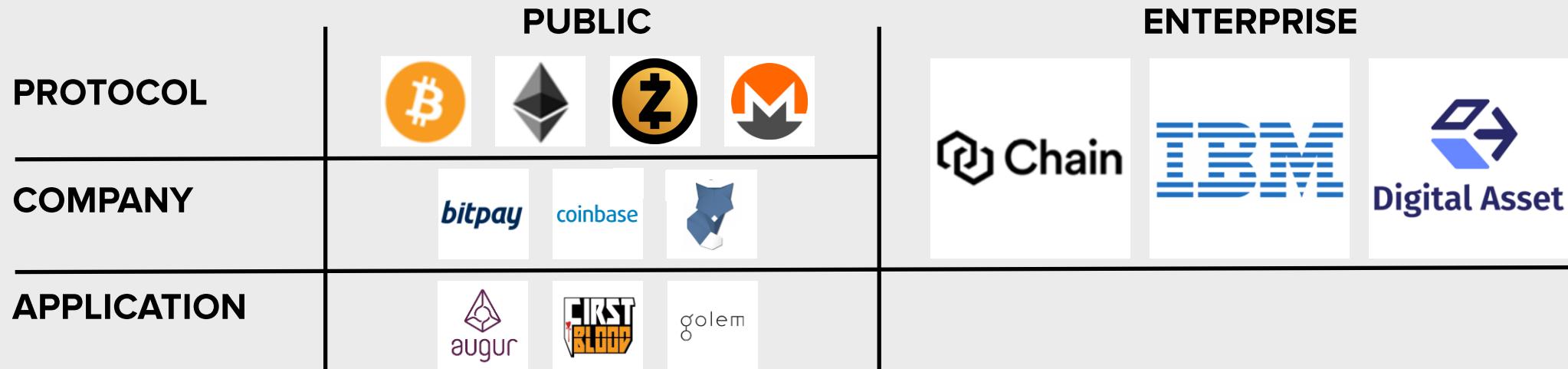
Irreversible transactions
Slow transaction clearing (e.g., 3 – 7 transactions / second)
More vulnerable to attacks (e.g., 51%, spam, DDoS)
Reduced privacy
Energy consumption

Data Sources: [Ethereum](#), [MultiChain](#)

Notes: Ledgers and protocol rules may be changed via forks, although these changes can introduce risks

Blockchain Ecosystem Breakdown

When producing market maps and following investment trends,
we look for business shifts between these models:



The company layer crosses protocols and is heavily comprised of bitcoin related businesses,
while the application layer is dominated by ethereum applications

Notes: Numerous protocols are also maintained by open source communities, non-profits
like the Ethereum Foundation and consortiums like R3 and Hyperledger

Blockchain Project Funding Models

Entrepreneurs have begun considering blockchain token sales ('ICOs') as fundraising alternatives to traditional venture capital and angel investment



ICOs rather than VC has driven the development of most public blockchain applications, as well as numerous protocols and companies, a line which is becoming increasingly blurred

Notes: Numerous protocols are also maintained by companies like the Zerocoin Electric Coin Company, open source communities, non-profits like the Ethereum Foundation and consortiums like Hyperledger



Disclaimer

CoinDesk makes every effort to ensure the information used these slides is accurate and up to date. We cannot, however, accept responsibility for any loss or inconvenience caused by reliance on the material contained here.

This presentation does not constitute financial advice or an investment recommendation in any way whatsoever. It is recommended you perform your own independent research and/or speak with a qualified investment professional before making any financial decisions.

CoinDesk is owned by Digital Currency Group, one of the most active investors in the bitcoin and blockchain technology industry. Many DCG investments are referenced in this report, and a full list can be reviewed at www.dcg.co. CoinDesk is run as an independent entity, and its editorial team does not give preferential treatment to DCG investments when they are referenced in research reports or news posts. Numerous DCG portfolio companies are referenced in this report.