Blockchain matters

Why does blockchain matter?

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PART 6

Have you ever heard these phrases?

Blockchain matters

Blockchain is going to change the World!

Bitcoin bubble has been popped!

Bitcoin is a bubble!

Bitcoin is the money of criminals!

Bitcoin bubble is going to be popped!

Bitcoin is dead! Bitcoin Obituaries, url

Blockchain is immutable!

Bitcoin is the blockchain!

Blockchain is not Bitcoin!

Blockchain contains the truth!

Smart contracts are running on the blockchain.

Cryptocurrencies are useless, but blockchain is good!

Blockchain is secure!

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Confusing, isn't it? To get better understanding and to be able to decide which statement is true, follow this presentation series!

Outline of the whole series

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- Little steps to the beginning
- The born of the technology
- Bitcoin, why is it so important?
- OK, so what is blockchain? And what is DLT?
- Consensus mechanisms
- Oracles
- Ethereum, the world computer
- Smart contracts
- Tokens and the digitization of physical objects, NFTs, SFTs
- The tsunami of cryptocurrencies
- ICO, IEO, STO, CeFi/DeFi, DID and other buzzwords
- The enterprise answer: consortium/private blockchain solutions
- When can/should I use blockchain? - The blockchain solution feasibility chart
- Possible use cases

Notation of references

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References related to a slide are listed at the bottom of the slide, or right next to the text.

Visual Capitalist, G. Bhutada, “Purchasing Power of the U.S. Dollar Over Time”, 2021, url.

EOS, url

Solana, url

CertiK, “The Blockchain Trilemma: Decentralized, Scalable, and Secure?”, 2019, url

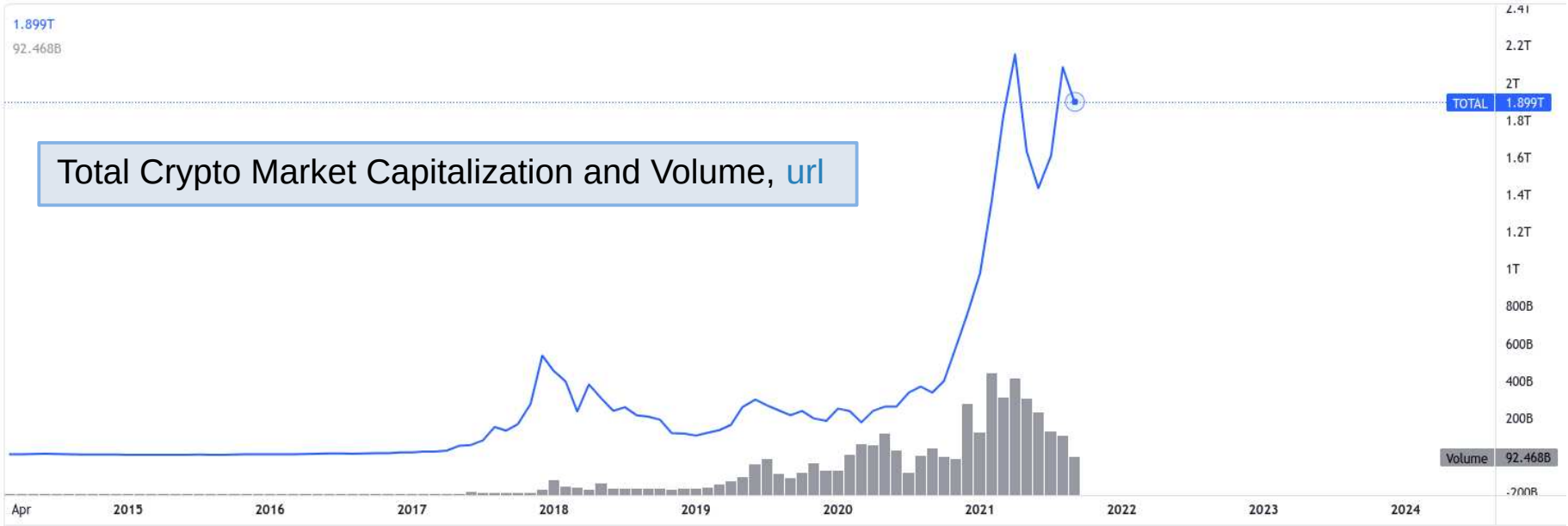
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Part 6 – Other cryptocurrencies
(and public platforms)

The size of cryptocurrency industry

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- Currently the total number of cryptocurrencies is 12192 (29.09.2021)
- The total market capitalization is $1,879,062,894,117



Coinmarketcap, url

The biggest cryptocurrencies

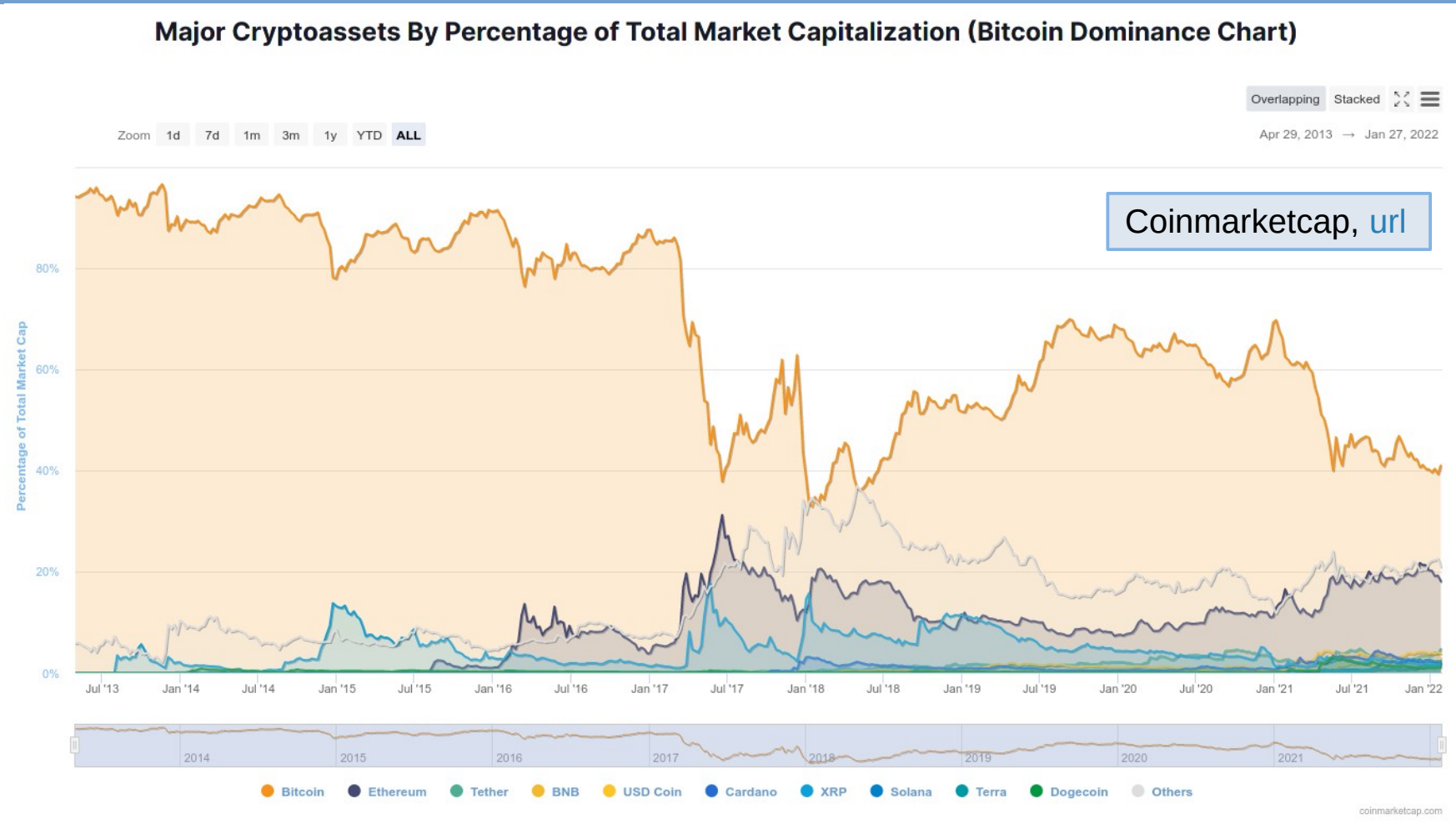
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#	Name	Price	24h %	7d %	Market Cap	Volume(24h)	Circulating Supply	Last 7 Days
1	Bitcoin BTC Buy	$42,251.50	1.95%	0.44%	$794,162,042,073	$30,177,125,592 715,500 BTC	18,829,581 BTC	
2	Ethereum ETH Buy	$2,926.92	2.30%	0.63%	$343,772,496,248	$16,373,581,362 5,607,057 ETH	117,723,290 ETH	
3	Tether USDT Buy	$1.00	0.01%	0.04%	$68,485,073,918	$65,733,166,298 65,716,365,421 USDT	68,467,569,675 USDT	
4	Cardano ADA	$2.10	0.30%	0.69%	$67,214,927,105	$3,325,904,172 1,585,297,446 ADA	32,038,100,544 ADA	
5	Binance Coin BNB Buy	$371.94	10.36%	2.89%	$62,412,367,096	$2,114,276,165 5,695,796 BNB	168,137,036 BNB	

Coinmarketcap, url

Bitcoin dominance chart

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Crypto Exchanges

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- Binance (China)
- Kraken (US)
- Coinbase (Pro) (US)
- Bittrex (US)
- Huobi (Global) (China)
- FTX (Antigua and Barbuda)
- Liquid (Indonesia, Japan)
- BitMEX (US) – leverage trading
- QuadrigaCX (Canada) – CEO dead in 2019, funds have been lost.
- Mt. Gox (Japan) – hack in 2014, 850,000 BTC have been stolen (~450 million USD at that time), bankrupt



Binance, BTC-USDC market, url

USDT (Theter)

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- The first stablecoin launched in 2014 with the original name Realcoin.
- Pegged to the USD.
- Issued by a Hong Kong-based company Theter.
- Several scandals
  - 2018: Tether couldn’t prove credibly the collateral.
  - 2019: Tether lent 850 million USD to Bitfinex, however, theoretically he wasn’t able to do that.
- Tether was in the clear every time.
- Available on several platforms (Omni, Ethereum, EOS, Tron, BSC, Solana, etc.)
- Available practically on every crypto exchange.

Theter, url

USDC

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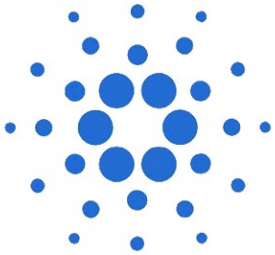


- Stablecoin launched by Coinbase and Circle in 2018.
- Pegged to the USD.
- Transparent, regular collateral audit.
- Available on several platforms (Ethereum, BSC, Stellar, Solana).
- Not every exchange has listed USDC.

USD Coin, url

Cardano

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- General purpose blockchain, founded in 2015
- Funded through an ICO in the end of 2017, 62M USD raised!
- “Ethereum killer”
  - Smaller tx fees
  - Faster tx
- Smart contract feature started in Sept. 2021
- Biggest problem: Cardano is UTXO based (similar to BTC), which is not suitable for DeFI applications. The UTXOs cannot be re-used in the same block...
- PoS consensus.
- Native cryptocurrency: ADA

Cardano, url | Cardano ICO,url

Binance Coin

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- Utility token of Binance exchange. Holding BNB on Binance gives you exchange fee discount, higher cashback on Binance VISA card, etc.
- Started as ERC-20 token in July 2017
- Currently native cryptocurrency of
  - Binance Chain
  - Binance Smart Chain (BSC)
- Binance burns given amount of circulating BNB in each quarter. Deflation effect
  - 17th burn: 1,335,888 BNB burnt on 18th of Oct. 2021.
- WBNB: BEP-20 token of BSC, price is pegged to BNB at a rate of 1 WBNB = 1 BNB.

What is BNB?, url | 17th BNB Burn, url

Binance Smart Chain (BSC)

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- Ethereum fork, EVM compatible.
- Native currency: BNB
- Supports BEP-20 tokens (e.g. WBNB, BUSD)
- Semi-centralized, permissioned, public blockchain with public transactions.
- Decentralization is given up in order to have fast txs (3 second block time) and low tx fees.
- Consensus: Proof of Staked Authority (PoSA)
- Tx fees are paid in BNB, no block reward, block generator receives only the tx fees of the transactions included in the block.
- Very expensive to be a validator
  - The minimum self-delegated amount to be a validator is 10000 BNB, which is approx. 5.3M USD(!) (Oct. 2021).
  - The top 21 most staked nodes forms the validator set. Currently more than 800k BNB (~400M USD) must be staked to be in the top 21.
- Currently one of the most popular smart contract and DeFI platform which results in scalability problems. Is it familiar, isn't it? The same caused the problems in case of Ethereum :) Moreover BSC is not decentralized...

Validators Top Leaderboard, url

An Introduction to Binance Smart Chain (BSC), url

Binance Smart Chain Validator FAQs, url

Solana

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- Grounded by Anattoly Yakovenko in 2017.
- Robust, general purpose blockchain with smart contract support.
- Native cryptocurrency: SOL
- Delegated PoS based consensus, termed Tower Byzantine Fault Tolerance (TBFT) on the top of Proof of History (PoH)
  - Txs are linked to each other using SHA256, order of txs are not depends on miners. (Similar to timestamps)
  - Validators, who are staking SOL, add the uninterrupted chain of hashed transactions to blocks.
- Innovative features: Pipeline (transaction processing unit for validation), Cloudbreak (horizontally-scaled accounts database), Archivers (distributed ledger storage), etc.
- Solana tries to solve the blockchain trilemma: more or less decentralized, very fast (>50000 tx/sec) and scalable.
- Low tx fee (0.00025 USD)
- Currently (December 2021) the mainnet is in beta phase. Currently DDOS attacks can cause issues.

Solana, url

Dogecoin

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- Pronounce: [dohj koin]
- A Bitcoin fork (Bitcoin -> Litecoin -> Junkcoin -> Dogecoin), introduced in 2013 as a joke.
- The first meme-coin.
- Elon Musk usually promotes Dogecoin on Twitter
  - First tweet on 20th of December 2020: “One Word: Doge” -> 2.5x increase in Dogecoin price.
  - Several tweets in Q1 and Q2 2021 -> totally 65x increase in price.
- Currently (Oct. 2021) Dogecoin is the 9th on coinmarketcap list with 33 billion USD market capitalization!

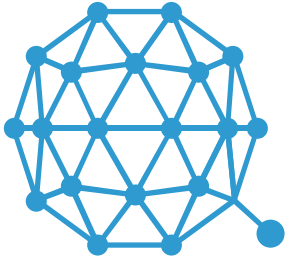


Dogecoin, url

“One Word: Doge”, url

QTUM

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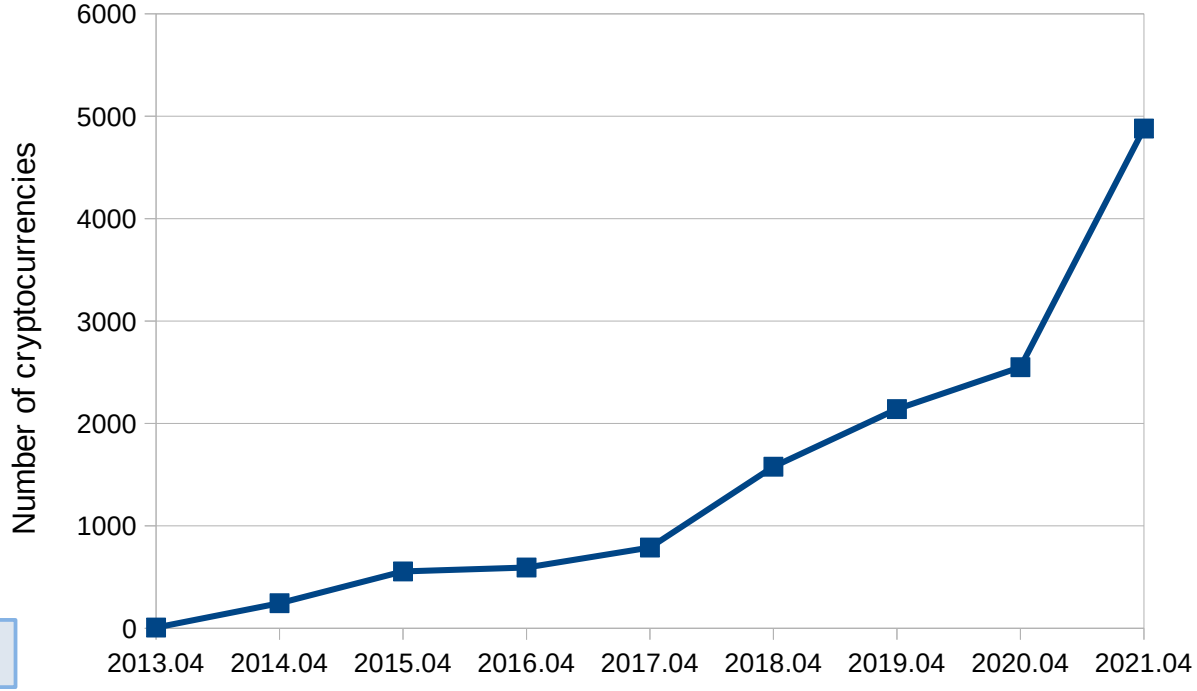
- General purpose blockchain
- Started in 2017, ICO was held from March to April 2017, 15.6 million USD was raised.
- Bitcoin’s UTXO model with Ethereum EVM (smart contract) compatibility
- Proof of stake consensus with optional delegation feature.
- Native cryptocurrency is QTUM.

QTUM, url

The cryptocurrency tsunami

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- The number of cryptocurrencies is increasing exponentially.
- However, significant part of the projects are abandoned (dead).



Coinmarketcap, url

Shitcoins

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- Typically, but not necessarily
  - small projects with small capitalization not liquid assets
  - high volatility, price can be pumped/dumped even with a quite small market order.
- Basically no fundamental value, but usually there is a strong community and hype.
- Shitcoins usually follow the pump and dump scheme.
- Trading with shitcoins is definitely a gamble (but without regulations)
- Small chance to win (a lot), but high risk to loose a lot.
- Shitcoins with biggest capitalization
  - Dogecoin
  - Shiba Inu
  - SafeMoon
  - Dogelon Mars

All that glitters is not gold

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Dec. 2017

Rank	Name	Symbol	Market Cap	Price
1	Bitcoin	BTC	$320,575,829,567.54	$19,140.76
2	Ethereum	ETH	$69,409,040,636.14	$719.98
3	Bitcoin Cash	BCH	$31,409,971,010.31	$1,862.88
4	XRP	XRP	$28,216,285,883.56	$0.7284
5	Litecoin	LTC	$17,323,837,062.47	$318.72
6	Cardano	ADA	$13,300,876,467.61	$0.513
7	IOTA	MIOTA	$10,921,183,749.67	$3.93
8	Dash	DASH	$8,581,257,771.97	$1,105.92
9	NEM	XEM	$6,190,439,700.39	$0.6878
10	Monero	XMR	$5,443,176,708.39	$351.37
11	Bitcoin Gold	BTG	$5,021,765,072.27	$300.49
12	Stellar	XLM	$4,759,878,770.56	$0.2666
13	EOS	EOS	$4,482,553,930.79	$8.22
14	Neo	NEO	$4,427,435,188.29	$68.11
15	Ethereum Classic	ETC	$3,424,599,163.71	$34.79

Oct. 2021

Rank	Name	Symbol	Market Cap	Price
1	Bitcoin	BTC	$1,156,485,845,063.09	$61,318.96
2	Ethereum	ETH	$506,663,636,947.23	$4,288.07
3	Binance Coin	BNB	$87,464,591,883.46	$524.36
4	Tether	USDT	$70,286,558,907.95	$1.00
5	Cardano	ADA	$65,378,981,994.98	$1.97
6	Solana	SOL	$61,003,141,449.57	$202.42
7	XRP	XRP	$52,339,587,880.10	$1.11
8	Polkadot	DOT	$42,211,209,861.97	$42.74
9	SHIBA INU	SHIB	$36,919,669,978.72	$0.00006724
10	Dogecoin	DOGE	$36,972,572,649.67	$0.2802
11	USD Coin	USDC	$33,171,892,682.46	$0.9997
12	Terra	LUNA	$17,185,456,898.79	$42.89
13	Uniswap	UNI	$15,685,350,733.04	$24.99
14	Avalanche	AVAX	$14,161,740,161.71	$64.29
15	Wrapped Bitcoin	WBTC	$14,041,557,835.31	$61,380.59

Coinmarketcap, url

: projects disappeared from top 15

: projects didn't exist in Dec. 2017

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Coming up next: ICO, IEO, STO, CeFI, DeFI

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Thank you!

If you liked this material you can tip me

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- Bitcoin: *3FvgmYScorEje3WTrdDn5synEU6j917SZz*
- Litecoin: *ltc1qs457h3899qj4yry8k6u5xva79wa8f6xspant4e*
- Ethereum: *0xdF7eAab54BC9070a140D0251247406cEe40029B7*
- QTUM: *MGo31aQ74yHJ9Lan4tgYeFy5XhtHZuoimQ*
- Tezos: *tz1VpDWz45fvqv69Laa6YVa3h6MtkCoq1BDc*

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Thank you again!