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Common Blockchain Misconceptions – Part 3 of 3

WEEKLY RECAP

- Total market cap. decreased 3.9% to $171bn, and 7 day trading volume increased 7.7% for top 100 crypto

THOUGHTS OF THE WEEK

Standard Kepler CEO David Tang recently authored a series of articles on the subject of blockchain and cryptocurrency misconceptions. This week we have a look at the last two of these misconceptions.

7. "Blockchain makes illiquid assets liquid": While this can be true, it is in fact far from a certainty. It is important to understand why cryptocurrencies can be liquid, and why this same liquidity may not apply to other assets even if they are tokenized.

Here are two very important concepts: liquidity and transaction costs. Liquidity depends on the divisibility, transaction cost, and most importantly, adequacy of demand and supply for the asset. Transaction cost consists of a number of different individual costs:

- Search & information cost: Cost of matching buyers & sellers, verifying the identity of parties and the authenticity and ownership of goods.
- Bargaining costs: Cost of achieving consensus on price and delivery method.
- Policing & enforcement costs: Cost of making sure all parties follow the agreement.

These costs can also be categorized as 1) cost of regulation, 2) cost of verification, 3) cost of execution and enforcement.

Bitcoin is highly divisible, it has low transaction cost as it has almost no cost of verification, you don't need to check the authenticity of a Bitcoin; and as long as it is not regulated then there is no cost of verifying the identity of involved parties. With enough demand and supply Bitcoin can have very good liquidity. This logic can be applied to all tokens that do not represent real-world assets (no cost of verifying the asset quality, authenticity, and ownership), and that are not regulated (no cost of verifying identities and no regulatory costs).

But when it comes to tokenizing real-world assets, then we are looking at a different story. For example, security token offering (STO) is the tokenizing of company shares. Let us assume tokenization won't affect the demand and supply: if the asset is not allowed to be offered for sale to the general public, then it will not / should not suddenly be possible to sell the same asset to the general public just by putting it on a blockchain. Furthermore, it won't make unattractive assets become attractive, bad debt is still bad debt no matter if it is on blockchain or not.

So, what we need to look at is if tokenization improves the divisibility and lowers the transaction cost of an asset compared with existing methods. As we mentioned previously, transaction cost is made up of various components. The cost of regulation will not be lower for a security token. Crypto has low cost of regulation because it is non-regulated, but security tokens must be regulated just like other securities and hence they should have the same cost of regulation. In terms of cost of verification, Bitcoin is Bitcoin, they are homogeneous and the authenticity is self evident. This is definitely not the case with the underlying assets of security tokens. If the token represents an overseas property, as an investor you still need to check the location of that property, the decorations, the actual return of investment etc. This type of information is what we call general information (see part 1) which blockchain cannot help to verify. You also need to verify the identity of the involved parties to make sure the transaction complies with relevant laws.

Blockchain may potentially help by lowering the cost of execution and enforcement, but this is only limited to the token transaction part. Security tokens don't only involve token transactions, and there are also transactions from the underlying asset which are not happening on blockchain.

I will not spend too much time on the divisibility issue. Most assets are already highly divisible, REITs for real estate, different types of funds for various investments. I agree that tokenization can improve the divisibility of an asset, but I would also argue that tokenization is not an improvement over existing solutions.

As a result, blockchain doesn't really make illiquid assets liquid unless the tokens are non-regulated and do not represent real-world assets. We make blockchains decentralized to allow them to operate without trusted parties; decentralization is not the goal in itself. In the case of STO, personal information and authorities must be involved. It makes no sense for us to pay the extra cost of introducing decentralization. STO is more like an internal system upgrade for existing security systems, it is not a paradigm shifting technology. So if the asset is illiquid because of regulatory requirements, insufficient demand and supply, then blockchain will not help. If the asset is illiquid because of the cost of executing the transaction is too high, private blockchain may help.

8. "Blockchain applications are decentralized applications": Making applications decentralized can be helpful at times. For an example we can look at decentralized gambling applications. They don't have licenses, users don't know who the operators are, there is no protection for gamblers. Yet, users can trust them because decentralization guarantees the immutability of the code. The agreed program code cannot be altered. Decentralized applications put the core logic on blockchain and establishes fully automated execution. That's why users can trust that the program will deliver that which has been claimed. But just putting the program code on blockchain doesn't make it decentralized.

Program 1: A smart contract that stores 1000 coins, and it will continuously send out 1 coin to a random address until there are no more coins left.

Program 2: A smart contract that will distribute the income from a company to token holders, every quarter the company CEO will convert the company's profits to crypto and send it to the smart contract.

Obviously, we can determine whether or not program 1 can deliver what has been promised just by checking the code, while we cannot tell if program 2 will be executed. Even though the smart contract is immutable, no one can guarantee that the CEO will in fact send all the profits to the smart contract. Therefore, program 2 cannot be considered a decentralized application as the core logic and execution is not decentralized.

If we want to build a truly meaningful application on blockchain, we have to be aware of the limitations of this technology, and not simply keep repeating to ourselves and others how powerful we consider this technology to be (with most of these repeated statements being incorrect). Misusing this technology contributes nothing to the propagation of blockchain technology, but rather causes harm by resulting in large parts of the public labelling blockchain as a mere gimmick or even scam.

TOP CRYPTO PERFORMANCE SUMMARY

Name	Price	7D%	Vol.	7D%	Mkt Cap.	% Total Mkt
BTC	$5,285.14	-0.10%	89.19bn	10.96%	93.39bn	54.59%
ETH	$157.30	-7.12%	39.14bn	5.34%	16.65bn	9.73%
XRP	$0.30	-7.54%	6.37bn	1.10%	12.49bn	7.30%
BCH	$255.47	-11.42%	7.28bn	-0.59%	4.54bn	2.65%
EOS	$4.72	-9.12%	12.40bn	5.70%	4.45bn	2.60%
LTC	$69.73	-8.66%	16.35bn	7.60%	4.29bn	2.51%
BNB	$22.90	-4.20%	1.43bn	-20.92%	3.23bn	1.89%
USDT	$0.99	-1.30%	77.65bn	8.85%	2.83bn	1.65%
XLM	$0.10	-11.57%	1.41bn	-9.90%	1.88bn	1.10%
ADA	$0.07	-6.35%	0.45bn	-6.46%	1.78bn	1.04%

NETWORK FUNDAMENTALS

	BTC	ETH
Hashrate 7D Av.	45,430,361 TH/s (1.0%)	147,614 GH/s (0.4%)
Hashrate 30D Av.	45,501,595 (-0.7%)	145,452 GH/s (1.0%)
Wallet Users 7D Av.	36,075,610 (+1.3%)	62,440,044 (+1.2%)
Wallet Users 30D Av.	35,372,267 (+1.1%)	61,330,189 (+1.0%)
Top 4 Mining Pools	AntPool (14%) BTC.com (13%) Poolin (11%) F2Pool (10%)	Ethermine (26%) SparkPool (22%) F2Pool (13%) Nanopool (12%)

Please see important disclosure on next page.

DISCLAIMER

Abbreviations: ADA: Cardano; BCH: Bitcoin ABC; BSV: Bitcoin Satoshi Vision; bn: billion; BTC: Bitcoin; Central Bank Digital Currency: CBDC; crypto: cryptocurrencies; ETH: Ethereum; ICO: Initial Coin Offerings; Market Cap: Market Capitalization; mn: million; RPS: Retail Payment System; Trading Vol.: Trading Volume; tx: transaction(s); US$: United States Dollars; USDT: USD Tether; WPS: Wholesale Payment System; XLM: Stellar Lumens; XMR: Monero; XRP: Ripple

Chart of The Week: Sources:

Network Fundamentals: Sources: Blockchain.com, Blocktrail, Etherchain.org, Etherscan.io, Standard Kepler Research

Thought of The Week: Sources: Standard Kepler Research

Top Crypto Performance Summary: Sources: Coinmarketcap, Standard Kepler Research

Weekly Recap: Sources: Coinmarketcap, Standard Kepler Research

Past performance does not guarantee future results.

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The price of Bitcoin and other cryptocurrencies are highly volatile in nature. It is suggested that clients should perform their own due diligence and consult a fully qualified independent professional financial adviser before making any investments in cryptocurrencies.

Unless otherwise stated, all data is as of April 28, 2019 or as of most recently available.

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