## 2020 in Crypto – A Review of the Most Important Events in the Market and Trends to follow for 2021

Daniel Ramos, Gabriel Zanko, MobileyourLife - Bogotá, D.C., Colombia

#### Abstract

With 2020 coming to an end, we take the time to look back on the most relevant occurrences that shook the world of cryptocurrency and how the effects of these events have paved the road that the market will follow in the upcoming months. However, there are also other aspects that could shape the future of cryptocurrency for 2021 and probably the rest of the decade, and we are taking a look at an analysis performed by the team at Messari to help us look at the bigger picture and set the foundations for the long term of digital assets.

# *Index Terms* – 2020, trends, events, halving, DeFi, Bitcoin, Ethereum, 2021, Zcash, NFTs, mining.

#### I. INTRODUCTION

We are already on the homestretch of the year, and it cannot end soon enough for most people. Probably the most eventful year in recent history, 2020 was marked drastically by the pandemic of COVID-19 and worldwide lockdowns in attempts of controlling it, along with other multiple events that kept humanity on edge on what was coming next.

As expected, cryptocurrency was not exempt from this trend. Every month that passed felt like a big new announcement or movement was made, and this led to a new long-term bullish trend, which already showed its first results and has investors and enthusiasts on edge about what 2021 might bring. This is the reason why we are releasing this article, to summarize the biggest events in the crypto market during the year and to look forward to what 2021 promises at the moment.

Along the article we will be linking a number of research document we released during the year, in which we reviewed each important event in detail at the time of writing. Each of these documents could give you more insight in the important occurrences of 2020 and help in understanding the potential trends for the upcoming year. Let's begin.

#### II. EVENTS OF 2020

The first noticeable effect of lockdowns and quarantine measures was the near elimination of the consumption side of the economy, which in turn left the productive side grasping for whatever help it could get. Those who were unlucky and could not translate their jobs at the time to a work-from-home alternative where faced with terrible decisions, from accepting pay cuts to simply losing their positions, which then started affecting their savings. This is where cryptocurrency shone for the majority of the year, as its role of an alternative to the traditional banking system and a way for people to protect their savings against situations that targeted the rest of the economy directly, and even more when this particular event was foreseen to last for many months after the initial lockdowns.

In more specific terms, one of the first big movements within the crypto market was the third "Bitcoin Halving" during 2020, an automatic event that triggers once the Bitcoin chain reaches a certain length and that cuts the mining rewards for each block in the chain in half, which set it to its current 6.25 BTC per block. This was implemented all the way from its conception as a way to extend the lifespan of the currency, since there will be only 21 million BTC minted, and to combat inflation, but it also has effects on the mining environment. Previous halvings raised the question about how miners would face the change and reduction in profits, but also served as proof that these events usually mark the start of long-term bullish runs that raised the value of BTC, so that the halved rewards equaled to even greater profits than before the halving.

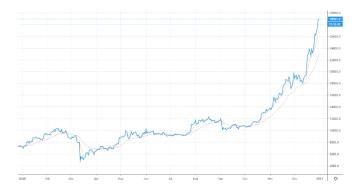




Figure 1. Plot of Bitcoin's value in USD (above, from tradingview.com), Total Value Locked in the entirety of the DeFi market (middle, from defipulse.com) and market capitalization of USDT (below, from coinmarketcap.com), which are considered the best performing aspects of the cryptocurrency market during 2020

and indicators of the positive outcome of the year.

We also experienced the steep rise of the Decentralized Finance sector (parts I and II), which is both related to the rise of blockchain-based financial services due to the pandemic and to Compound (one of the largest and best ranked DeFi platforms) launching their COMP token, which meant they were launching their platform to complete public governance. With the feeling that the economy might be affected for many months, the derivatives market and asset digitization sector gained traction, and sooner than expected the DeFi sector went from \$1 billion in Total Value Locked to nearly \$4 billion in two months (from late May to late

July), then breaking the \$10 billion line in September and its closing the year nearly at \$15 billion.

Other analysts focus on the great advancements in terms of regulations. Back in July 2020, the OCC released a letter that allowed banks in the U.S. to hold crypto assets on behalf of their clients, meaning that the concept of cryptocurrency is being understood and accepted by the higher spheres in the economy, which then led to big leaps taken in the research and development of Central Bank-issued Digital Currencies, or CBDCs. The concept had been around for a while, but the looming shadow of a globalized economy entirely handled through the internet (boosted by the economic effects of the pandemic) threatened to take away the sovereignty of countries over their own economies, which is why CBDCs as a concept were so thoroughly studied during the year, with examples like Sweden's e-krona and Uruguay's ePeso, which are expected to help in the inclusion of the most marginalized parts of the population in regards of access to banking while giving support for almost unrestricted cross-border transactions.

Another big point for cryptocurrency was the public interest of multiple institutions and big brands in the field, with payments giant PayPal announcing in October they would start allowing users to buy, sell and hold cryptocurrencies through their system from 2021, which brought a wave of positive sentiment to the market. This, along with other highly anticipated announcements like Ethereum's updated mainnet, Ethereum 2.0, already on the move, opened the doors for the entire market to reach new all-time highs, with the overall market capitalization breaching the \$700 million mark and the giant of the market, Bitcoin, reaching a new roof by breaking the \$25,000 line, and other big tokens are also well on their way to rise to historic levels.

#### **III. EXPECTATIONS FOR 2021**

All of these events set the stage for what seems to be a very prolific 2021. With BTC on the rise, the rest of the market following its movements, institutional clients showing increasing interest and the seemingly friendly regulatory landscape, the next year could bring great advancements in many different fronts, as explained by Messari in their report for 2021.

### III.a. Public interest in crypto

The first great effect that we may see is even more interest from institutions and big client into crypto, specifically into Bitcoin since it is the most well-known token among the ocean of alternatives, which could turn the current bullish run into "the big one" that could take the crypto giant to the \$100,000 level by the end of 2021. Furthermore, the dominance of the big names among their peers keeps increasing, with Bitcoin reaching nearly 90% dominance over other Proof-of-Work tokens, Ethereum closing in on 70% over other platform tokens and Tether representing 75% of the dollar-pegged stablecoins market, which makes them the potential first targets for enthusiasts and investors.

Fueled by the election of Joe Biden as President of the United States and the current toss-up in Georgia that will decide the majority of the Senate, the implementation of a new fiscal stimulus package will play an important part in the rest of the economy for the upcoming months, as they need to plan a way to combat the debt acquired in 2020, which could drive even more people towards cryptocurrency. According to the team at Messari, should the Congress remain split, money will continue to be printed in order to cover debts, which may destabilize the economy even more and thus drive more users towards cryptocurrency.

Of course, the potential of a new U.S. administration brings with it the doubts of how much acceptance will cryptocurrencies receive at this level, especially since the vast majority of the mining capacity of Bitcoin existing outside of the U.S. If this fact translates into seeing Bitcoin as a tool to undermine international sanctions, the sentiment of the government will likely be the catalyst of a bearish run. However, the continuous rise of new and legal ways to acquire cryptocurrency and its overwhelmingly positive performance when compared to other assets make cryptocurrency an even more attractive asset to the public in the months to come, which can be clearly seen through the current bullish run.

Another important aspect to consider is how Bitcoin has gradually drifted apart from its original intent, to the

RATIOS			24h	r change				
Gold:BTC (marketcap)	38.75x		-1.73	-4.27%				
M2:BTC (marketcap)	64.51x		-2.14	-3.21%	Bitcoin & Traditional Assets ROI			
BTC:Oil (price)	373.27x		+1.46	+0.39%	(vs USD)			
Gold:Oll (price)	44.19x		-1.72	-3.76%		Bitcoin	Gold	S&P 50
				-0.1078	1 year:	+79%	+28%	+169
					2 year:	+148%	+54%	+30%
					3 year:	+144%	+46%	+389
US GOVERNMENT STATS 30-day change			v change	4 year:	+2,101%	+50%	+659	
					5 year:	+4,918%	+71%	+729
Federal Reserve Balance Sheet	\$7.16T	d	+\$82.83B	+1.17%				
M1 Money Supply	\$5.58T	и	+\$62.40B	+1.13%				
	\$18.84T	2	+\$139B	+0.74%				

Figure 2. Performance comparison between Bitcoin and other relevant assets (including gold and the S&P 500 index), showing how the cryptocurrency giant still manages to hold its ground against more traditional assets, even more in situations where it is look upon as a "safe haven" from the events that threaten the economy.

point where many experts agree that it is no longer private, which creates risks regarding scalability and fungibility. Many alternatives have popped up to complement BTC in this regard, but Messari believe that Zcash could be the best "hypermodel" among the crowd, as their key innovation was the introduction of "zero-knowledge proof" cryptography into its native payments network, which provides stronger privacy guarantees than typical blockchain transactions. Not only does Zcash offer a tangible solution to the issue, but it also shows how the crypto community is always eager to propose and test alternatives that could eventually lead to a nearly perfect environment.

#### III.b. Ethereum and DeFi

Other fields that may see even more of a growth in 2021 compared to this year are Ethereum, specifically its smart contract functionalities and carrying the flag of surpassing Bitcoin in terms of monetary value transferred through its network, and DeFi, which took 2020 by storm and laid the foundations for the rise of a potential "bankless" economy with building blocks like market making (Uniswap), options for liquidity farming (Compound), smart asset management (YFI), data oracles (ChainLink) and other functionalities needed to create a stable, fully decentralized financial system.

Ethereum is on pace to process more than \$1 trillion worth of transactions this year, including the vast majority of volume in the burgeoning (and increasingly



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Ethereum vs Bitcoin Daily Transaction Volume

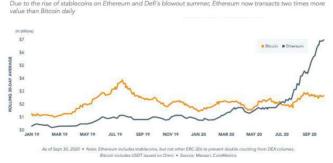


Figure 3. Comparison between annual (above) and daily (below) transaction volumes of Bitcoin (orange) and Ethereum (blue). Notice how, given the sentiment of "open access" of Ethereum, it managed to surpass Bitcoin in terms of transaction volume regardless of the massive difference in the value of the respective tokens.

complex) DeFi and "crypto dollar" sectors. These two might even eclipse Bitcoin in importance, since they are focusing their growth on smaller users and enthusiasts looking for a way in, so 2021 could be an even greater year for these sectors as they cement their functions, great names and userbases. Ethereum could even take over the market momentarily in the – now, highly unlikely – case that Bitcoin fails due inflation destroying its security model, sovereigns choking liquidity providers or a massive hijack in mining capacity, but ETH would still not have the resilience to keep the market afloat. It will, however, remain valuable due to its status as a commodity (necessary for transaction usage), a capital asset (for network staking), and a form of money (reserve).

### III.c. Stablecoins

Stablecoins could also take over a large portion of the market, this time in circulating value reaching over

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Total Market Capitalization of the Smart Contract Market Increased by 57% in Q3 Despite DOT launching at multi-billion-dollar valuation, ETH's sector dominance has barely budged quarter-or

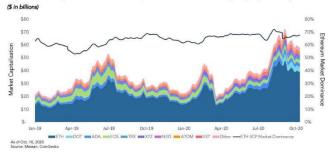


Figure 4 Comparison between the market capitalization of the total smart contract market and the cumulative share of different platforms. Notice the slight increase in Ethereum's dominance during the year while the remaining share of the market becomes more diverse.

\$20 billion, hundreds of billions in daily transactions and, with over \$1 billion of Tether in Ethereum, USDT is now behind ETH in terms of economic value stored, as the concept of dollarized tokens is becoming more popular and their role in the rise of DeFi became crucial during the year. People are warming up to the idea of tokens tethered to the U.S. dollar (as it will continue to be the reference point for crypto) and their usefulness in making transactions and storing value easier among such a volatile market. Along the lines of stablecoins, "synthetics" or digitized assets (tokens with a value tethered to a real-life asset) will also continue to grow in popularity as platforms that allow for crypto credits and digital mortgages move from concept to reality,

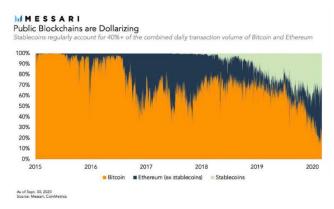


Figure 5. Graphical representation of the increase in daily transaction volume represented by stablecoins (green) against Bitcoin (orange) and Ethereum (blue). The sharp increase in the representation of stablecoins acts as evidence of the trend of the market to rely heavily on the U.S. dollar.

with the eventual goal of transitioning every type of real-life asset to the digital space.

One interesting project to follow within this sector is Celo, which arose from the more-than-questionable handling of Facebook's Libra. Celo uses phone numbers as public keys and doesn't require an internet connection, making it an attractive utility for the developing world. With a diverse and relevant list of backers, going from Reid Hoffman to Jack Dorsey, and funds like a16z, USV, and Polychain, and Celo issuer cLabs acquired blockchain interoperability specialist Summa this summer to work on bridges with Keep/tBTC, Cosmos, Ethereum, and Polkadot.

It is expected that crypto dollars on crypto platforms, synthetic assets, and Central Bank Digital Currencies (CBDCs) on state platforms will overtake platform tokens in circulating float in 2-3 years, and this expectation is supported by the reduction in risks on investment that the major tokens experienced during the year (BTC acting as digital gold and ETH as fuel for computing platforms), which translates directly to the safety of stablecoins.

#### III.e. Technical aspects

In this regard, the later months of the year gave us the launch of Filecoin, a decentralized storage network, and other important decentralized networking tools like Orchid (VPNs) and Helium (Internet-of-Things device networks), which are incredibly important infrastructure networks that will help Web3 and Non-Fungible Tokens (NFTs) in opening the doors for a new economy based on entirely digital resources.

It is also important to look at how the diversification of consensus algorithms and encryption mechanisms alters the way mining works, and its possible impact in how the energy is used. Should the current trends continue, we may be looking at a situation where the theorized "duck curve" (Figure 7) becomes a reality, and me may even reach a point where proof-of-work mining could potentially reduce carbon emissions. Excess energy needs to get funneled off of overloaded power grids to *some* external source. What if Bitcoin

#### M E S S A R I NFT Sector Investment Categories



Figure 6. Representation of the most relevant economic sectors within the NFT market and their most important tokens.

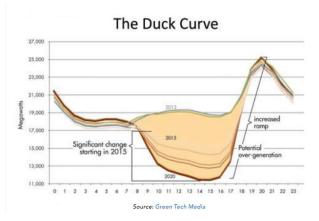


Figure 7. The "Duck Curve" which represents the year-to-year variation in used energy for a specific process. Note the variation in consumption from 2013 (light green) to 2015 (light pink) and 2020 (dark red), and how the colored area could be an indicative of overgeneration of energy that could be used in different ways since the efficiency of the mining hardware grows faster than the difficulty of the tasks.

mines could eventually serve as clean energy grid load balancers?

Last, but definitely not least, there are many analyses to perform regarding the situation of demand and supply of cryptocurrency, most relevantly Bitcoin, especially with the current panorama of increased performance. Regarding the use of cryptocurrency for custody, the team at Messari says that "much of the bitcoin that's getting sucked up right now may never touch the market again. These are long-term positions getting built and plowed into cold storage for long-term use by investors and corporates with investment horizons of 5 to 10 years. And the ratio keeps getting further out of balance. New bitcoin purchases from PayPal, Square, and Grayscale already exceed newly mined BTC rewards, which means all of the bitcoin is essentially spoken for." A similar phenomenon may be seen for demand and supply for countries, as more people keep struggling with their personal finances and high inflation, an increasing number of smaller fiat currencies may lose their balance in the upcoming years, which means that BTC could become their lifeline out of desperation, but is the big name of crypto ready for such demand?

#### **IV. CONCLUSION**

Overall, 2021 presents us with opportunities to take the lessons learned in 2020 and continue to learn, this time with a hopefully less hostile environment, and to see how the advancements in cryptocurrency as a whole can coexist with economies focusing on combating debt and their eventual state of recovery. Unlike almost every other economic aspect, cryptocurrency was given great opportunities during 2020, and most of them resulted in setting the bases for healthy growth in the face of such situations, but 2021 will test the resilience of these foundations when the landscape is changed, and the signs point towards a positive outcome for users of all tiers and interests.

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