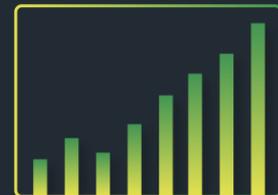
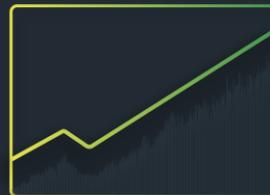




CoinGecko

Yearly Report 2020

FULL REPORT



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Analysts:



Erina Azmi



Win Win



Lucius Fang



Benjamin



Charles

Founders' Note

There are decades where nothing happens, and there are weeks where decades happen.

2020 was full of defining events that changed the course of the world. With the COVID-19 pandemic forcing many to digitally adapt, we believe that it is just a matter of time before our vision of global tokenization takes place.

2020 has been an exciting year for all of us in crypto. We saw plenty of price actions from Black Thursday in March, to the DeFi summer, and finally the strong bull run at the end of the year. 2021 promises to continue being an exciting year now that Bitcoin has breached its previous all time high three years ago.

DeFi has emerged as the biggest winner of the crypto sphere in 2020. The market witnessed a cataclysm of financial innovation enabled by blockchain that gave birth to multiple primitives such as flash loans, automated market makers, yield farming and algorithmic stablecoins. Financial experiments have never been conducted with such flexibility and it is simply exhilarating to be on the front seat of such groundbreaking innovations.

We are also seeing the inflow of institutional money. Having Microstrategy and Square holding Bitcoin as part of their corporate treasury is likely the start of a larger trend of large companies (and hopefully governments) buying Bitcoin. With the help of looser monetary policies and increased accessibility to crypto assets, we are optimistic that there would be more crypto market developments moving forward.

At CoinGecko we have also seen tremendous growth in 2020 as we start to expand our operations. We could not have reached here without the support of our users, and for that we will always be grateful. Look out for our new products and services in 2021. We hope that you will continue to support us!

“2020 has been an exciting year for all of us in crypto”



Bobby Ong
COO

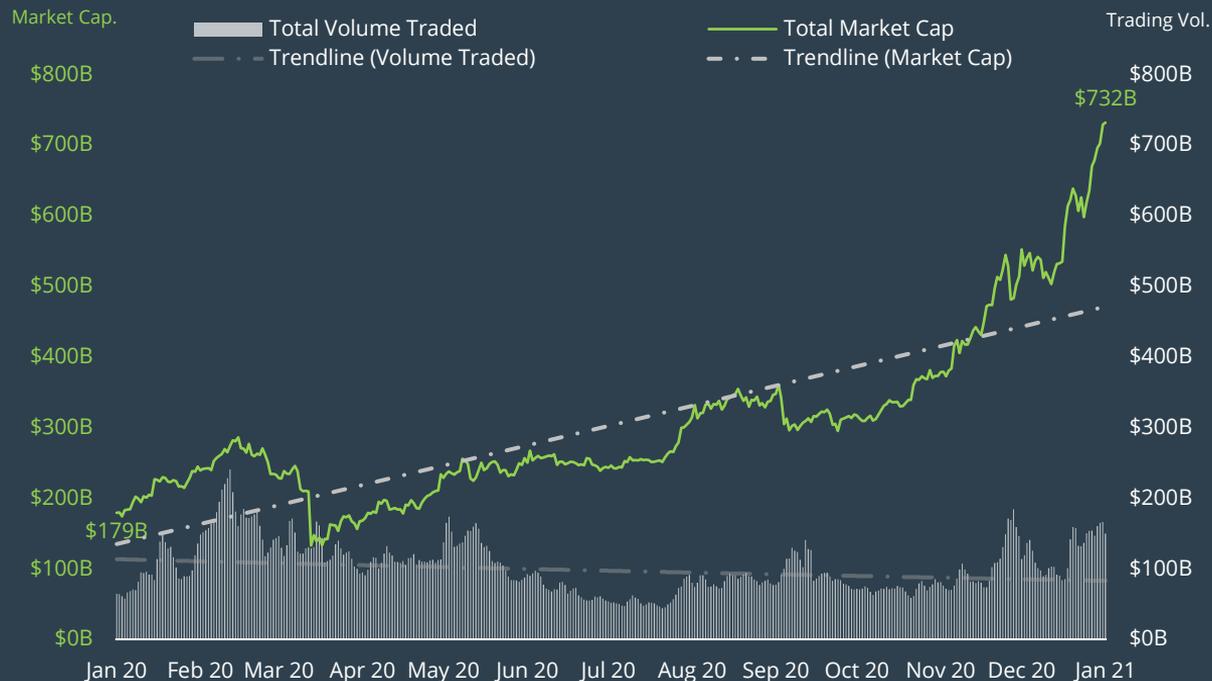
TM Lee
CEO

MARKET LANDSCAPE

2020 Spot Market Overview

Market capitalization ended the year with all-time high of \$732 billion

Top-30 Market Cap & Spot Trading Volume (Jan - Dec 2020)



+308%

Top-30 Coins Market Cap Growth in 2020

2020 has been a great run for the cryptocurrency markets as market capitalization of the top 30 coins grew **308% (+\$552 billion)**, outperforming 2019's growth of 62% (+\$68 billion).

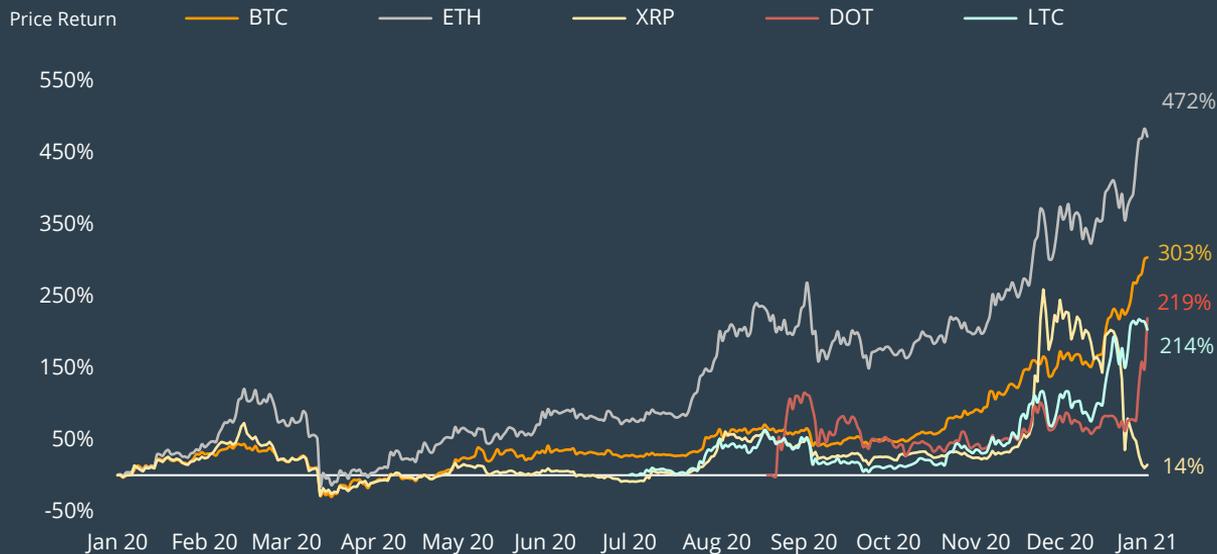
For spot trading volume, 2020 saw **slower growth** compared to 2019 (**126% vs. 627%**).

The endorsements by renowned investors, Paul Tudor Jones and Stanley Druckenmiller and participation of large public listed companies, MicroStrategy and Square in purchasing Bitcoin boosted crypto market confidence and pushed **market capitalization to its All-Time High of \$732 billion**.

2020 Top-5 Crypto Returns

Ethereum is the best performer among top-5 cryptocurrencies

Top-5 Cryptocurrency Price Returns (Jan - Dec 2020)



Ethereum had a stellar year with a 472% gain, outperforming the other top-5 cryptocurrencies in 2020. This was followed by Bitcoin, which rose by 303% breaking past its all time high in December 2020. Polkadot, a newcomer that launched in August 2020 quickly became a member of the top-5 cryptocurrencies, with a 219% growth.

* Top-5 Cryptocurrencies exclude Tether (USDT) stablecoin as of 1 January 2021
 ** Polkadot (DOT) only started trading on 19 August 2020

+242%

Top-5 Cryptocurrencies
Average Price Returns in 2020

Price returns 2020 (vs. 2019)

 **+303%**
(+95%)

 **+472%**
(-2%)

 **+14%**
(-45%)

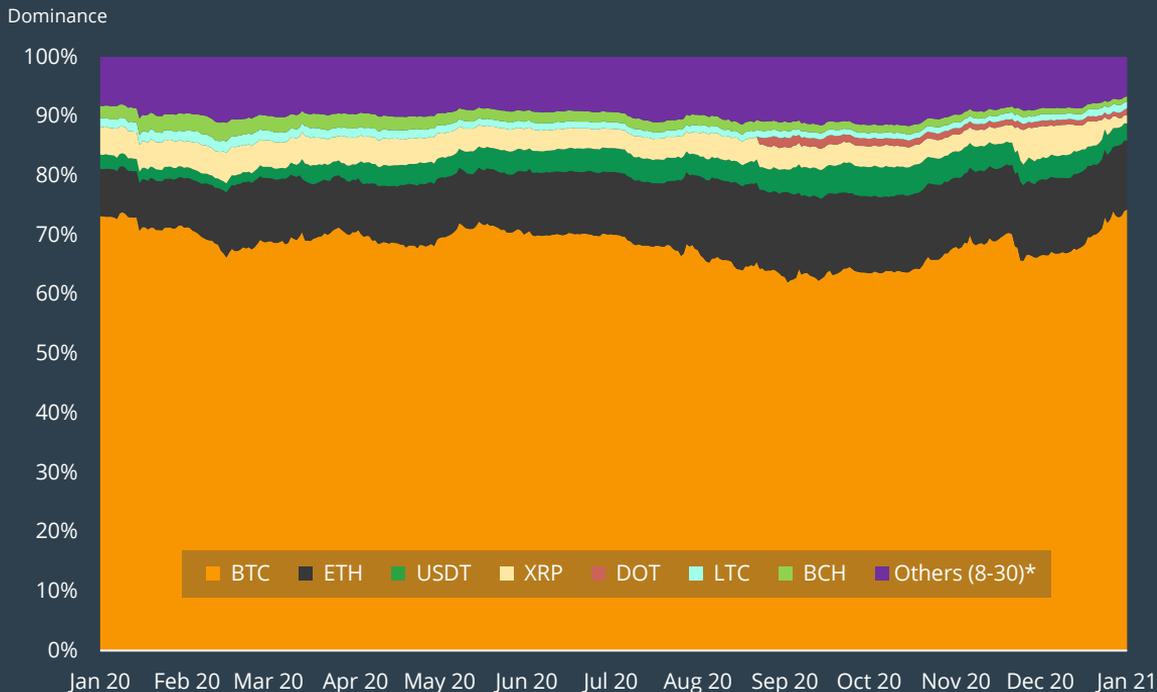
 **+219%****
(N/A)

 **+214%**
(+38%)

2020 Top-30 Coin Dominance

Ethereum outperformed Bitcoin in terms of dominance through 2020

Top-30 Cryptocurrency Dominance (Jan - Dec 2020)



Market Dominance 2020

(% change vs 2019)



Despite Bitcoin's rally towards the end of 2020, its dominance only **grew marginally by 0.9% to 73.7%**.

Ethereum was the true star of 2020 as its market dominance **climbed the highest by 3.6% to 11.5%**.

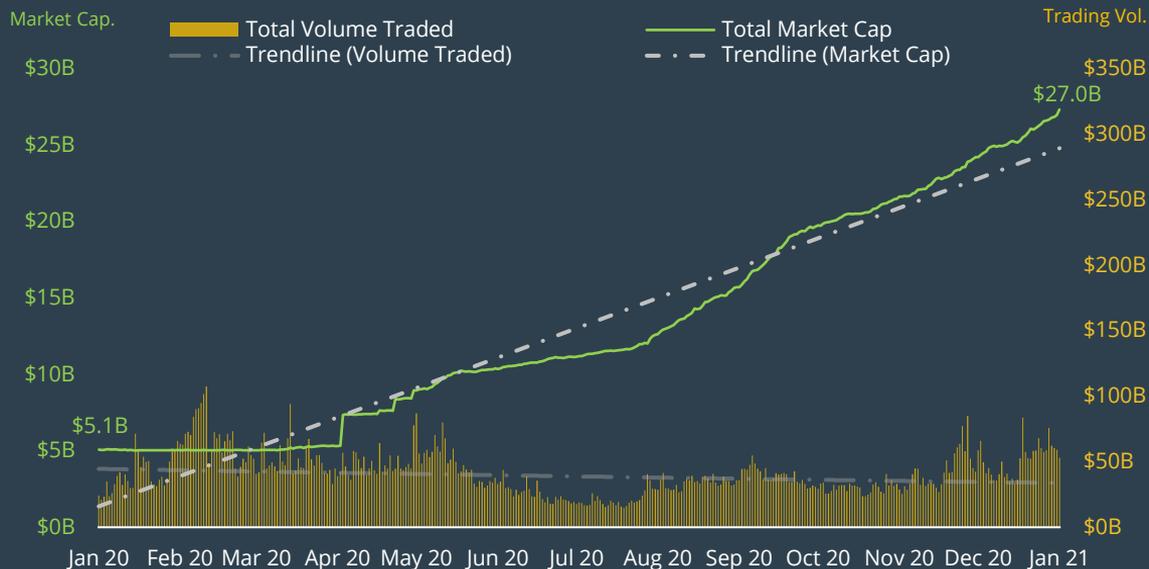
XRP was the **biggest loser with a 3.3% decline to 1.4%**, largely due to the SEC's **charge against Ripple** for conducting an unregistered securities offering. This has resulted in various exchanges delisting XRP such as Coinbase and Bitstamp.

* Others (8 - 30) refers to top 8 - 30 coins by market capitalization on CoinGecko as of 1 January 2021

2020 Top-5 Stablecoins

Top-5 stablecoins recorded a 439% increase to \$27 billion in circulation.

Top-30 Stablecoins Overview (Jan - Dec 2020)



Stablecoins saw strong growth in 2020. **Tether was still the dominant stablecoin with over 76% market share.** DAI had the highest growth way with a 2,698% increase due to the DeFi boom in 2020. Stablecoins growth in 2020 **surpassed previous year's growth (439% vs. 107%)** due to strong demand from traders in adopting stablecoins for trading and cross-border trade settlement.

Top-5 stablecoins by market capitalization taken as of 1 January 2021. See <https://www.coingecko.com/en/stablecoins>
 * Market capitalization for BUSD was tracked by CoinGecko only from 17 April 2020

+\$22.3B

Top-5 Stablecoins Market Cap
in 2020

2020 Stablecoins Circulation

(vs. 2020 growth)

 **\$20.9B**
USDT +\$16.5B (+388%)

 **\$3.9B**
USDC +\$3.4B (+652%)

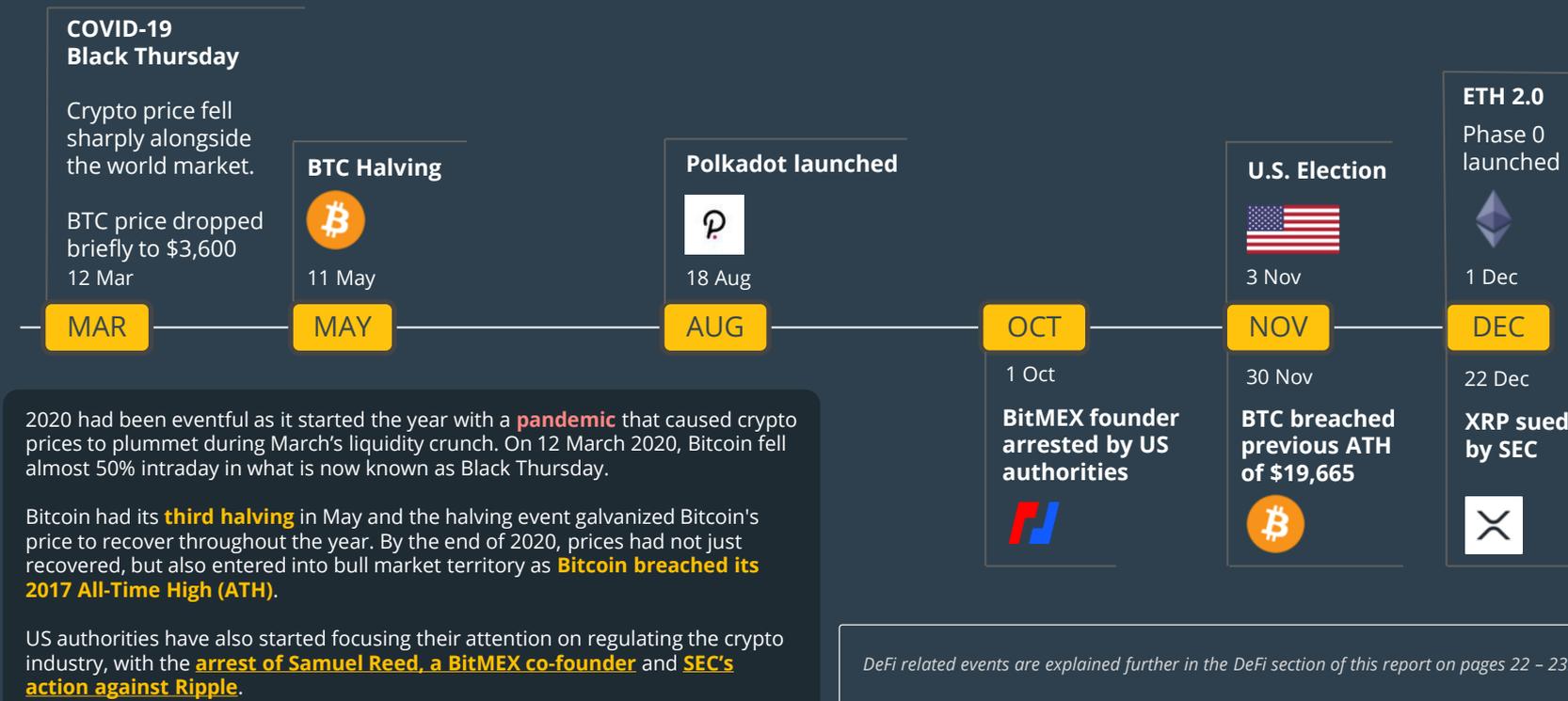
 **\$1.2B**
DAI +\$1.1B (+2,698%)

 **\$986.4M***
BUSD +\$787.9M (+397%)

 **\$336.9M**
PAX +\$111.5M (+50%)

Notable Events Outside of DeFi in 2020

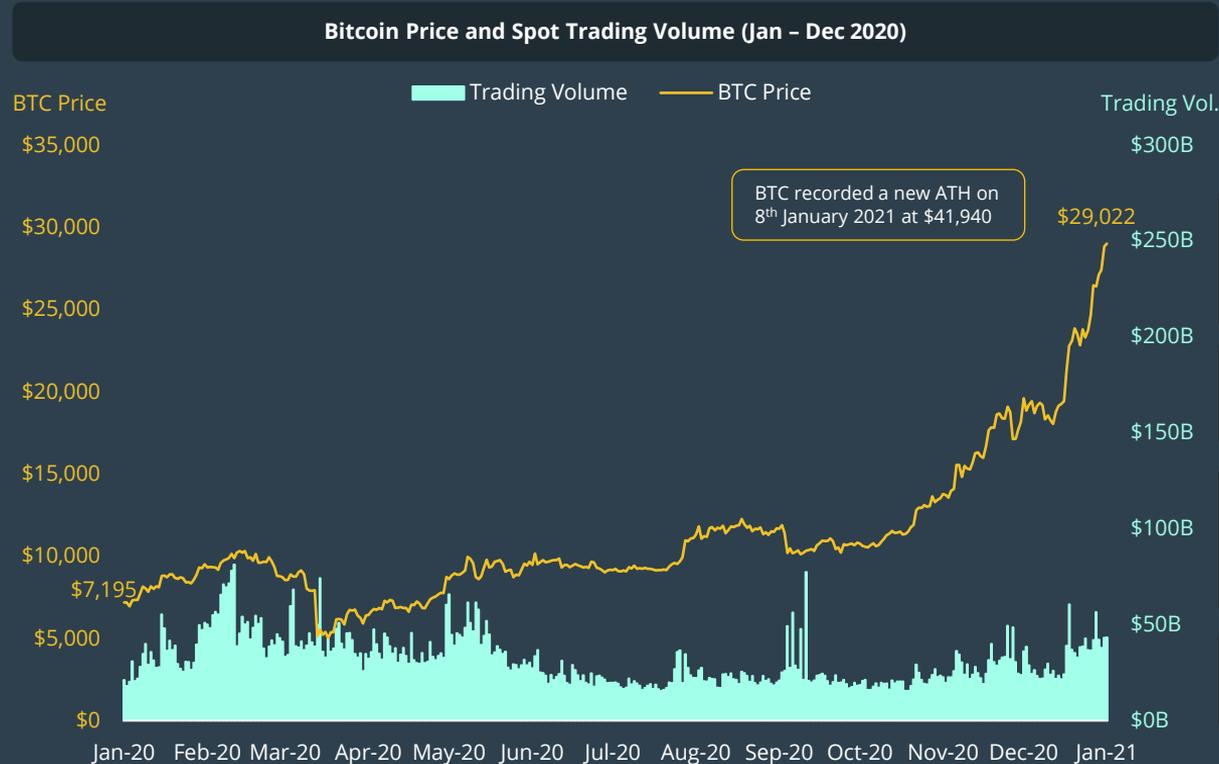
There's never a dull moment in crypto markets



BITCOIN ANALYSIS

BTC Price vs. Trading Volume

Bitcoin registered new All-Time High towards end of 2020



+303%
BTC Price growth in 2020

Almost 3 years later, Bitcoin finally topped its 2017 all-time high and **continued to record new ATH almost every day towards the end of the year**. Bitcoin closed the year at \$29,022, **48% higher** than its 2017 ATH.

2020 had a rough start as **COVID-19 crashed the market on March 12th** and caused Bitcoin to **drop almost 50% intraday**.

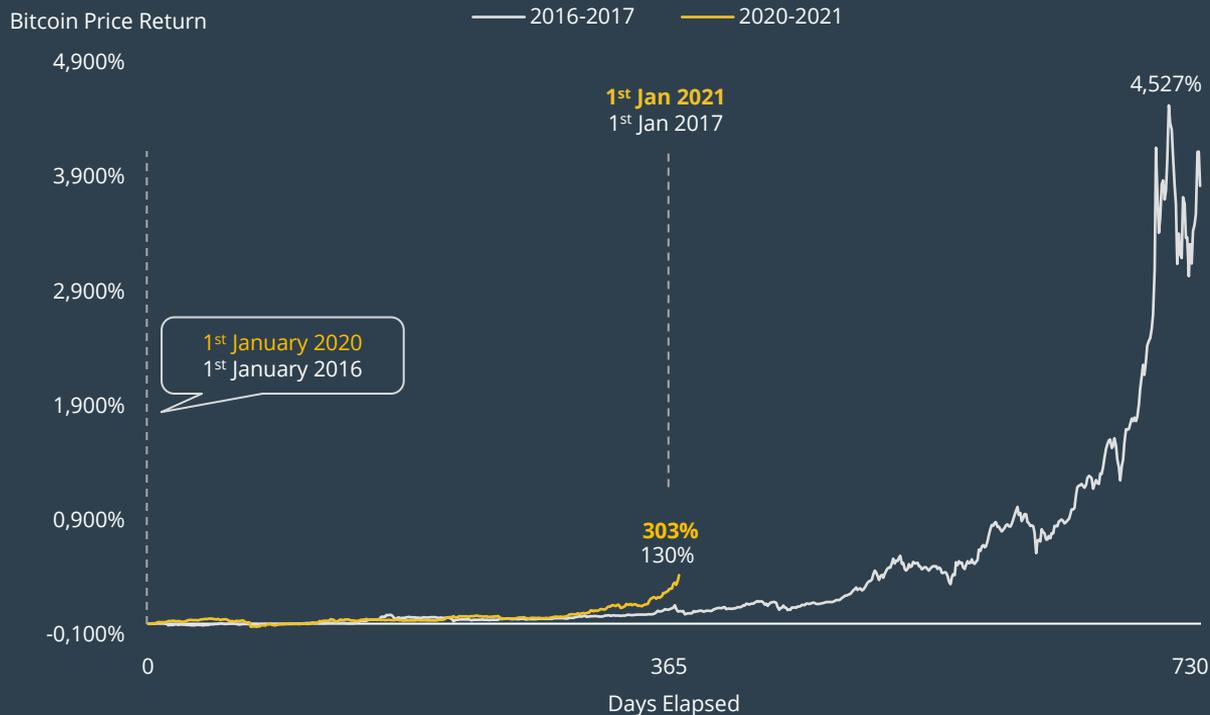
However, **the pandemic has created economic uncertainty** and this may driven investors to diversify holdings. Bitcoin is widely **considered one of the assets that may hedge** against falling the falling US dollar and inflation.

Institutions adoption of Bitcoin has bolstered market sentiment, causing Bitcoin to end the year **with a 303% return**.

Bitcoin price cycle 2016-2017 vs. 2020-2021

Will the 2020-2021 cycle mimic the 2016-2017 trajectory?

Bitcoin Price Cycle 2016-2017 vs. 2020-2021



In 2016-17, Bitcoin price had an explosive growth and peaked at 4,527% return.

While in 2020-21, **Bitcoin has risen more than double in the first year against the last cycle (303% vs. 130%).**

How will things look this cycle?

Bitcoin is on an upward trajectory now, and there are **three potential drivers**:

1. **Accessibility** - Buying and selling cryptocurrencies is much easier now with PayPal and Revolut offering cryptocurrency services.
2. **Stimulus & Inflation** - Due to the COVID-19 pandemic, most central banks have adopted a loose monetary policy, sparking concerns of future inflation.
3. **Institutional adoption** - Large public listed companies such as MicroStrategy and Square have started holding Bitcoin as part of their corporate treasury.

Price Returns Bitcoin vs. Major Asset Classes

Bitcoin showed resilience and had been the best performing asset class in 2020

Bitcoin vs. Major Asset Classes in 2020

Price Return



Return from 2020 Bottom refers to the price return from the lowest price in 2020 to the closing price on 31 December 2020

	2020 Returns	Largest Daily Drop	Largest Daily Drop Date	Return from 2020 Bottom
BTC Price	303%	-35%	17-Mar-20	473%
Nasdaq Composite	43%	-9%	20-Mar-20	87%
Gold	22%	-5%	18-Mar-20	28%
S&P 500	16%	-10%	20-Mar-20	63%
TLT (US Treasuries)	15%	-7%	9-Jan-20	15%
US Dollar Index (DXY)	-7%	-2%	31-Dec-20	0%
Crude Oil	-23%	-45%	21-Apr-20	385%

BTC had **triple-digit returns (303%)** and **outperformed all major asset classes** by a large margin in 2020.

BTC **had the second steepest drawdown (-35%)** during March's liquidity crunch.

However, thanks to institutions' adoption and Federal Reserve's aggressive stimulus strategies, **Bitcoin ended the year with a 473% return from its lowest point.**

Major Asset Classes 2020 Daily Return Correlation Matrix

Bitcoin exhibited as the store of wealth and portfolio hedge in 2020

2020 Daily Return Correlation Matrix

	Bitcoin	Gold	Crude Oil	TLT (US Treasuries)	Nasdaq Composite	S&P 500	US Dollar Index (DXY)
Bitcoin	1						
Gold	0.20	1					
Crude Oil	0.07	0.15	1				
TLT (US Treasuries)	-0.04	0.36	-0.04	1			
Nasdaq Composite	-0.09	0.24	0.30	0.18	1		
S&P 500	-0.10	0.19	0.30	0.15	0.95	1	
US Dollar Index (DXY)	-0.12	-0.09	0.06	-0.20	-0.06	-0.05	1

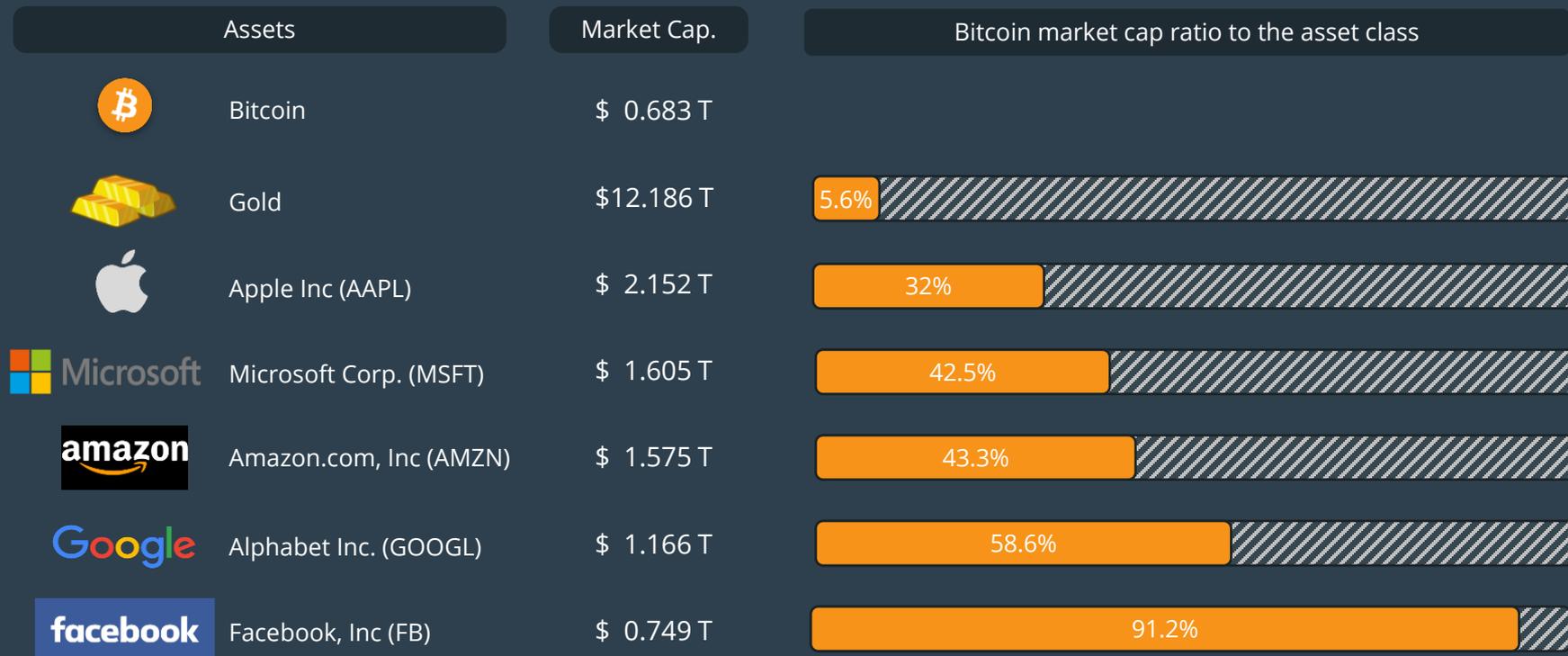
Bitcoin and Gold exhibited a **positive correlation** throughout 2020, indicating their status as **safe haven assets** during the 2020 tumultuous market.

Bitcoin and U.S. stocks have a **negative correlation** which suggests that they are **decoupling throughout 2020**. The increasing demand from new Bitcoin institutional investors may have aided the divergence of Bitcoin's price action from the stock market.

Given **the negative correlation** between BTC and the U.S Dollar Index over a 12-month period, BTC can be used as part of a **portfolio's hedge against the falling dollar value and inflation**.

Market Capitalization: Bitcoin vs. Gold vs. Top-5 S&P 500 Stocks

Bitcoin's market capitalization is nearly 6% that of gold

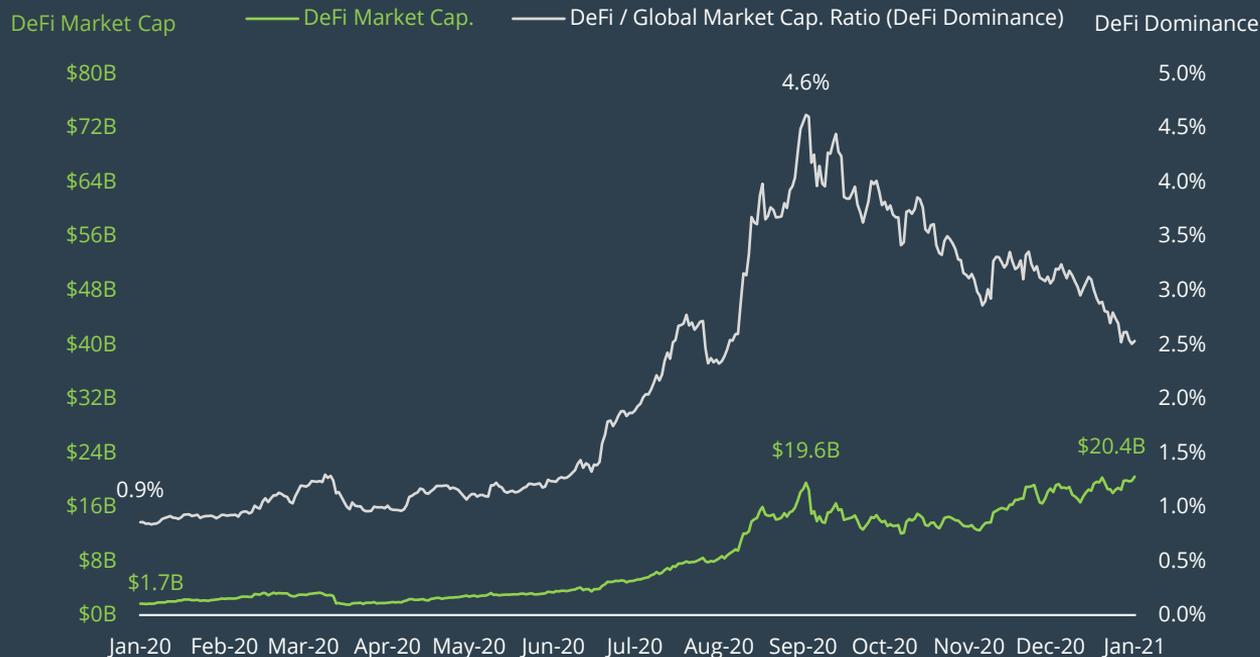


Data snapshot taken on 1st January 2021
<https://www.investopedia.com/top-10-s-and-p-500-stocks-by-index-weight-4843111>
<https://finance.yahoo.com/>

DEFI ANALYSIS

DeFi ended the year with market capitalization ATH (\$20.4 billion)

DeFi Market Cap vs. DeFi / Global Market Cap Ratio



In 2020, the crypto space witnessed **the meteoric rise of the DeFi sector**, particularly during the 'DeFi summer' (June – August) as DeFi dominance rose rapidly from 0.9% to 4.6%.

As for the market cap, **it multiplied 12 times to \$19.6 billion** during the peak of the summer.

DeFi market cap stood on a **new ATH at \$20.4 billion, 4% higher than its previous peak** at the end of 2020.

Despite that, DeFi dominance **dropped to 2.5%** from its 2020 peak as Bitcoin's large price movement towards the end of the year shadowed DeFi sector's growth.

If and when Bitcoin dominance drops, a renewed DeFi craze may be in sight.

2020 DeFi Price Returns

Overall, DeFi tokens had a positive return up to almost 3,000%

2020 Top-10 DeFi Return

	Market Cap	2020 Returns	Largest Daily Drop	Largest Daily Drop Date	Return from 2020 Bottom
Chainlink 	\$4.47B	539%	-48%	03-Sep-20	550%
Uniswap 	\$1.10B	50%	-20%	19-Sep-20	168%
Aave 	\$1.06B	57%	-21%	11-Nov-20	219%
Synthetix Network Token 	\$0.99B	497%	-46%	03-Sep-20	1761%
Yearn.Finance 	\$0.68B	2788%	-20%	13-Sep-20	2788%
Compound 	\$0.62B	91%	-17%	21-Jun-20	123%
Maker 	\$0.53B	35%	-59%	12-Mar-20	189%
UMA 	\$0.42B	2423%	-37%	05-Sep-20	2423%
SushiSwap 	\$0.36B	10%	-58%	05-Sep-20	484%
Loopring 	\$0.21B	685%	-45%	05-Sep-20	686%

+718%

Average DeFi Price Returns
in 2020

Overall, DeFi tokens had positive returns throughout 2020 with **YFI and UMA leading the pack at 2,788% and 2,422%** growth respectively.

Notably, **6 out of top-10 DeFi tokens are the new entrants** in 2020 (YFI, UMA, COMP, AAVE, UNI, and SUSHI).

Most DeFi tokens had maximum drawdown of an average 37%, where **MKR had the worst drawdown in 2020 at almost 60%**.

Data services proved to be more valuable than exchange and lending

To understand the value of each platform within DeFi space, we will be looking at their 2020 growth of the Fully Diluted Valuation (FDV) and market capitalization to give us some indication on the importance of their product and services.

The **heavyweights are infrastructure related protocols** that powers data flow within the DeFi ecosystem. This is closely followed by money-market related services such as decentralized exchanges and lending & borrowing platforms. Notably, **Decentralized Exchanges (DEXs) have gained rapid adoption with the invention of pooled liquidity model rather than orderbook.**

Infrastructure



Chainlink

FDV: \$11.25B (+538%)
Market cap: \$4.47B (+595%)



The Graph Protocol

FDV : \$3.51B (+190%)
Market cap: \$429.99M (+189%)



Band Protocol

FDV : \$534.32M (+2,299%)
Market cap: \$120.39M (+2,923%)

Decentralized Exchanges



Uniswap

FDV: \$5.17B (+50%)
Market cap: \$1.10B (+400%)



Curve Finance

FDV: \$2.07B (-94%)
Market cap: \$109.85M (+1,749%)



1inch

FDV: \$2.06B (-42%)
Market cap: \$105.52M (-30%)

Lending



Compound

FDV: \$1.50B (-32%)
Market cap: \$619.54M (+109%)



Aave

FDV: \$1.41B (+57%)
Market cap: \$1.06B (+2,260%)



Maker

FDV: \$590.50M (+35%)
Market cap: \$529.77M (+64%)

* Percentage change in FDV was calculated from the listing date to 1st Jan 2021.

** Illustration above showcases 3 category leaders by market cap for each sector – there can be more than 3 in each sector.

Complex DeFi protocols are struggling to gain adoption

Within the DeFi ecosystem, derivatives platform remain fairly underutilized by the wider community. **Yield farming aggregators have gained popularity but struggled to grab significant market share** post DeFi summer, likely due to unsustainably high yields and past exploitations. One notable new participant **is the emergence of algorithmic stablecoins as a new DeFi primitive**, though its sustainability remains unproven.

Derivatives

Synthetix



FDV : \$1.55B (+499%)
Market cap: \$986.67M (+810%)

UMA



FDV : \$775.14M (+2,422%)
Market cap: \$424.91M (+2,654%)

Hegic



FDV : \$357.33M (+2%)
Market cap: \$37.54M (+366%)

Yield Farming Aggregators

Yearn Finance



FDV: \$685.19M (+2,788%)
Market cap: \$685.19M (+42,762%)

Alpha Finance



FDV: \$185.76M (+260%)
Market cap: \$32.35M (+259%)

Harvest Finance



FDV: \$50.63M (-88%)
Market cap: \$26.95M (+5%)

Algorithmic Stablecoins

Empty Set Dollar



FDV : \$412.99M (+16,978%)
Market cap : \$412.99M (+16,978%)

Ampleforth



FDV : \$282.97M (+16,923%)
Market cap : \$282.97M (+16,923%)

Basis Cash



FDV : \$79.55M (+2,588%)
Market cap : \$79.55M (+2,588%)

* Percentage change in FDV was calculated from the listing date to 1st Jan 2021.

** Illustration above showcases 3 category leaders by market cap of each sectors - there can be more than 3 in each sector.

An Introduction To The DeFi Ecosystem

Risk mitigation is still in its infancy compared to Traditional Finance (TradFi) counterparts

Insurance, Fixed Interest Rate, and ETF are huge in traditional finance as risk management tools but has yet to gain any significant traction in DeFi. This suggests that DeFi users either have very high risk appetite (i.e. degens), or that risk management tools have yet to mature.

Fixed Interest Rates



BarnBridge

FDV : \$263.67M (-85%)
Market cap: \$22.63M (+339%)



Saffron Finance

FDV : \$43.12M (+145%)
Market cap: \$47.94M (+140%)



88mph

FDV : \$8.25M (-27%)
Market cap: \$6.25M (+131%)

Insurance



Nexus Mutual

FDV : \$189.75M (+169%)
Market cap: \$189.62M (+281%)



Cover Protocol

FDV : \$43.12M (+38%)
Market cap: \$32.70M (+213%)



Nsure Network

FDV : \$58.62M (-15%)
Market cap: \$4.58M (+232,265%)

Tokenized Indices



DeFiPulse

FDV : \$24.73M (+1,202%)
Market cap: \$24.73M (+1,202%)



Power Index Pool

FDV : \$10.87M (+95%)
Market cap: \$10.87M (+95%)



PieDAO DEFI ++

FDV : \$722.64K (+22%)
Market cap: \$722.64 (+22%)

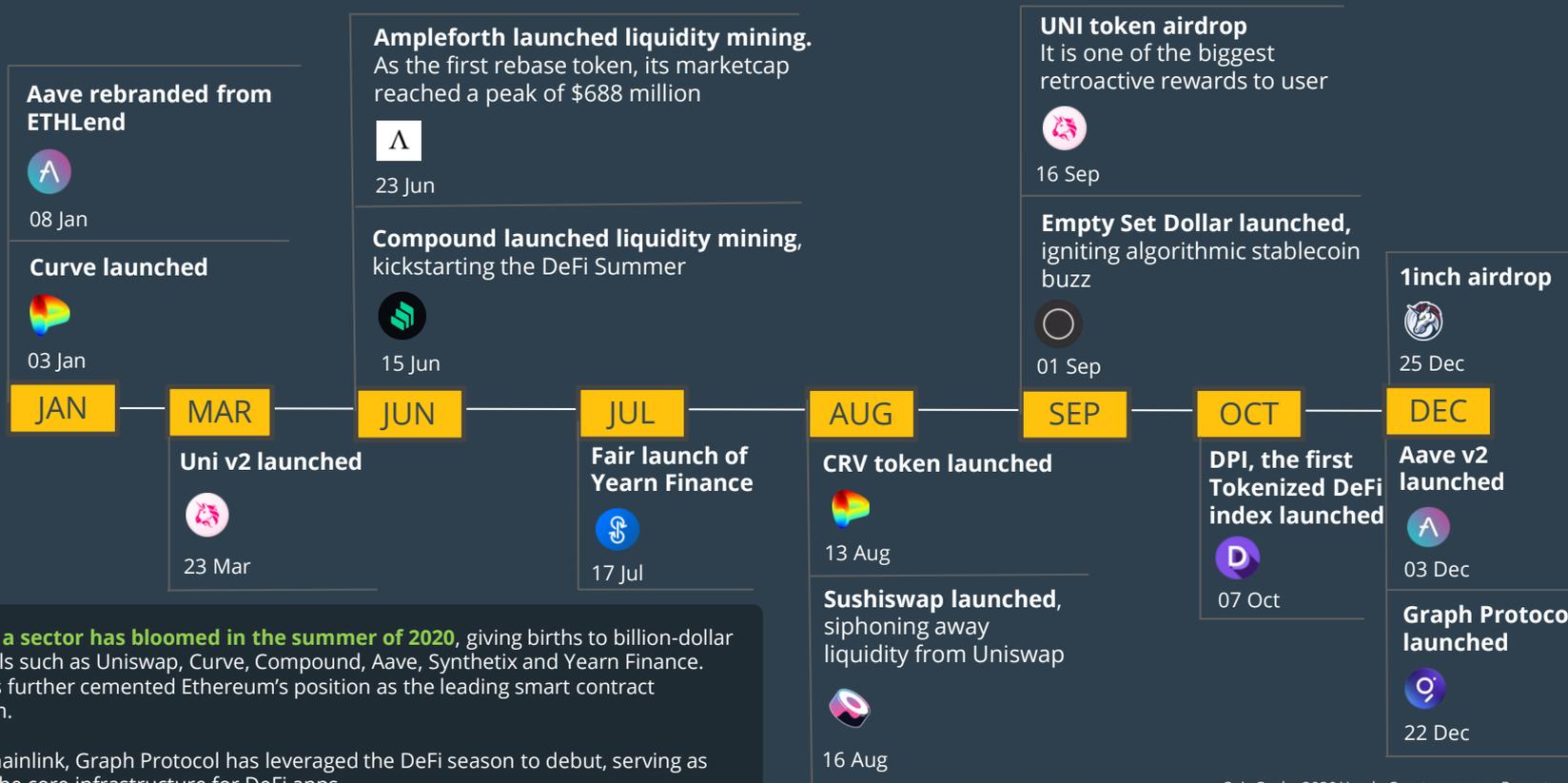
* Percentage change in FDV was calculated from the listing date to 1st Jan 2021.

** For Cover, figures were taken as of 5th January 2021 after migration.

*** Illustration above showcases 3 category leaders by market cap of each sectors - there can be more than 3 in each sector.

Notable DeFi Events in 2020

DeFi Summer has managed to capture significant mindshare in the crypto world

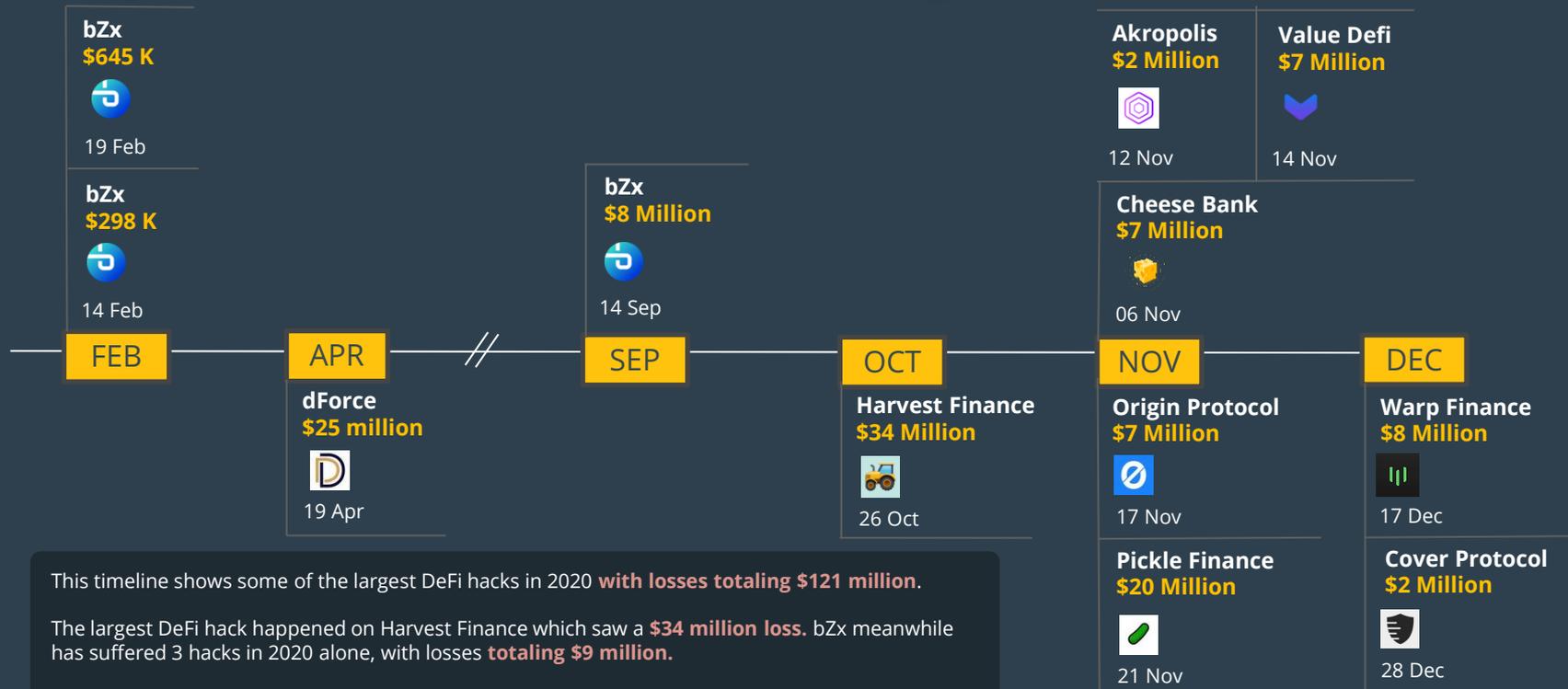


DeFi as a sector has bloomed in the summer of 2020, giving births to billion-dollar protocols such as Uniswap, Curve, Compound, Aave, Synthetix and Yearn Finance. This has further cemented Ethereum's position as the leading smart contract platform.

After Chainlink, Graph Protocol has leveraged the DeFi season to debut, serving as one of the core infrastructure for DeFi apps.

DeFi Protocols Exploitations in 2020

DeFi ecosystem lost \$121M in total to hackers throughout 2020



This timeline shows some of the largest DeFi hacks in 2020 with losses totaling \$121 million.

The largest DeFi hack happened on Harvest Finance which saw a \$34 million loss. bZx meanwhile has suffered 3 hacks in 2020 alone, with losses totaling \$9 million.

Immutability of smart contracts are a double sword, there is very little recourse to lost funds. Users are encouraged to understand the risks when interacting with DeFi protocols and purchase insurance wherever possible.

FIXED INTEREST RATE PROTOCOLS

Fixed-Interest Rate Protocols (FIRPs)

FIRPs intend to address the demand for stable and reliable interest rates



With the growing popularity of yield farming, and increased volume of DeFi lending/borrowing, there has been a **growing demand for stable and reliable interest rates**. In Q4 2020, the gap in the market led to a boom of a new class of protocols known as Fixed-Interest Rate Protocols (FIRPs).

What amounts to a FIRP?

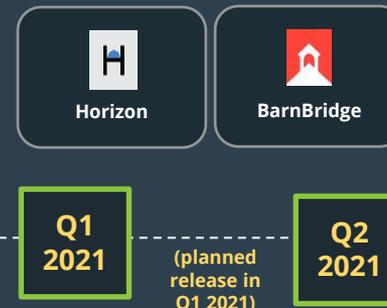
A protocol, whose underlying objective is to provide stable and reliable borrowing / lending interest rates, whether it be through offering:

1. Fixed interest rates
2. Fixed interest earning ratios; or
3. Creating a market environment which facilitates fixed interest rates

Active Products on Ethereum Mainnet



Under Development



Compared to traditional finance where fixed interest rates come in the form of fixed-deposits (or bonds), FIRPs **leverage their underlying tokenomics structure and offer different incentives to maintain interest rates**. Coupled with the utilization of smart-contract technology, FIRPs are able to move capital and deploy assets efficiently which translates into variable (albeit higher) earnings. This means that some FIRPs either offer a **'fixed interest rate'** or a **'fixed interest earning ratio'**. Moreover, there are FIRPs who do not offer fixed interest rates at all but rather **create an environment which facilitates fixed interest rates**.

Fixed-Interest Rate Protocols (FIRPs)

FIRPs use a variety of different methods to offer 'fixed interest rates'



Bond-based

issues bonds to finance debt



88mph is a yield aggregator that offers an **upfront** 'fixed interest rate'. However, in order to mitigate risks of insolvency, the protocol **offers a lower percentage** than the average variable interest rate of the protocol they are integrated with (e.g. Compound), as well **as floating rate bonds** to fill up debt (if any).

YIELD

Both Yield and Notional are **borrowing/lending protocols**. While there are some key differences, both protocols apply similar principles to offer **fixed lending/borrowing rates**.

&

Native tokens are created which act like **zero-coupon bonds**. These tokens have its own maturity dates and can be bought/sold at different prices. The difference between the price at the time of purchase and the price at time of maturity represents the fixed lending/borrowing rate.



Game Theory-based

users compete to outbid each other to maximize their yields



Horizon is a **yield aggregator** with a twist. **Users can bid** on the interest rates that they expect to earn for a pre-determined round.

At the end of each round, protocol earnings are distributed first to lower bids (lower interest rates) before moving up to higher bids. Users will have to bid smartly as they may not receive any earnings if they bid too high.

Users are therefore incentivized to bid conservatively up to the point which leads to a safe interest rate – this eventually becomes the 'de facto' fixed-interest rate.



Tranche-based

users earn yields based on their preferred risk profiles



&



Saffron and BarnBridge are **yield aggregators** that rely on **tranches**. Earnings are divided into portfolios which have different risk exposure. Instead of 'fixed interest rates', both protocols offer 'fixed interest earning ratios'.

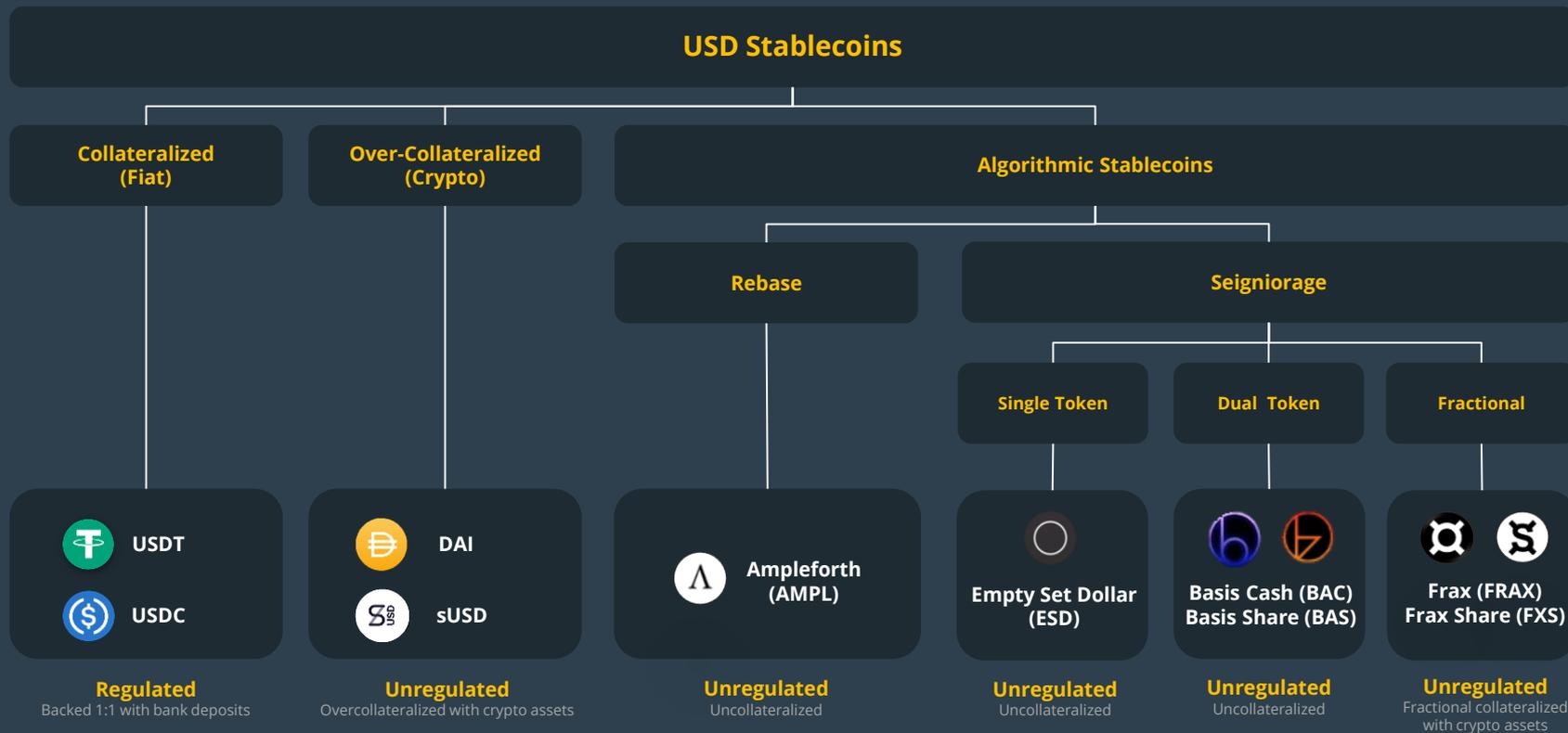
For SFI, there are three tranches for users to participate in. A core principle is that higher-risk tranches guarantees earnings of the lower-risk tranches thereby creating an **internal insurance system**.

Notably, BarnBridge also plans to use **tranches** and allow users to have varying levels of price exposure to coins/tokens.

ALGORITHMIC STABLECOINS

Stablecoins Categorization

Innovation has led to a growing variety of stablecoins



Algorithmic stablecoins are DeFi's innovative take on uncollateralized stablecoins



In order to address the lack of uncollateralized stablecoins, several protocols have attempted to create stablecoins that are algorithmically adjusted to ensure that its price remains at \$1. These protocols can be generally categorized into two categories which are (1) **Rebase models** and (2) **Seigniorage models**.

Rebase

Price is controlled by **changing the entire circulating supply**.

Protocol will automatically **increase the supply in every holder's wallet** over a fixed period.

Protocol will automatically **reduce the supply from every holder's wallet** over a fixed period.



Ampleforth (AMPL)

Price control mechanism

If price > \$1

If price < \$1

Examples

Seigniorage

Price is controlled by introducing a **reward system which influences market dynamics**.

Coins are minted and provided to participants who **provide liquidity or stakes token in the DAO**.

Coins stop minting. Users may then **purchase coupons which burns the underlying coin** in return for a premium which is only redeemable when the price returns to the peg.



Empty Set Dollar (ESD)

Each of the case examples have different methods to maintain their peg at \$1



Rebase



Ampleforth (AMPL) introduced the **rebase mechanic**.

Every 24 hours, the **entire circulating supply of AMPL is either proportionally increased or decreased** to ensure the price remains at \$1.

Every wallet holder will be affected but they would retain the same market share as before.

Since rebasing occurs at fixed intervals, **users can time their trades** to purchase or sell their AMPL right before rebasing to **increase the value of their holdings**.



Seigniorage (Single Token)



Empty Set Dollar (ESD) pioneered the Seigniorage (Single Token) model.

At the start of every epoch, the **system will measure the Time-Weighted Average Price (TWAP)**.

If the TWAP is above \$1, the **protocol will enter an inflationary phase** and mint tokens as rewards for DAO token stakers and liquidity providers.

Conversely, if the price falls below \$1, the **protocol enters a contractionary phase** where users will stop receiving any rewards.

During contraction, users may purchase coupons by burning ESD and earn a premium of **up to 56%** if the protocol enters the expansion phase again. However, **coupons only last for 30 days**, meaning coupon buyers risk getting nothing.



Seigniorage (Dual Token)



The Seigniorage (Dual Token) Model is **similar to the Single Token Model** but with the introduction of an **additional share token**.

Using **Basis Cash** as an example, the protocol has Basis Cash (BAC) as the stablecoin and Basis Share (BAS) as the staking token.

The main difference is that for users to receive inflationary rewards from the Boardroom (similar to DAO), they **must stake their share tokens**.

BAS (earned from liquidity mining) can be staked in the Boardroom to earn BAC during expansion.

Epochs last for 24 hours and bonds (similar to coupons) are **priced at (BAC)^2** but **do not have an expiry date**.



Seigniorage (Fractional)



Frax is a unique system where its supply is backed by two types of collateral which are collateralized-backed stablecoins (USDC) and FRAX Share (FXS).

Frax stablecoins (FRAX) **can always be minted and redeemed from the system for \$1 of value**. This incentivizes arbitrageurs to constantly purchase/mint FRAX which brings the price back to its original peg.

This is **underpinned by an adjustable collateral ratio** which controls the amount of FXS needed to mint FRAX.

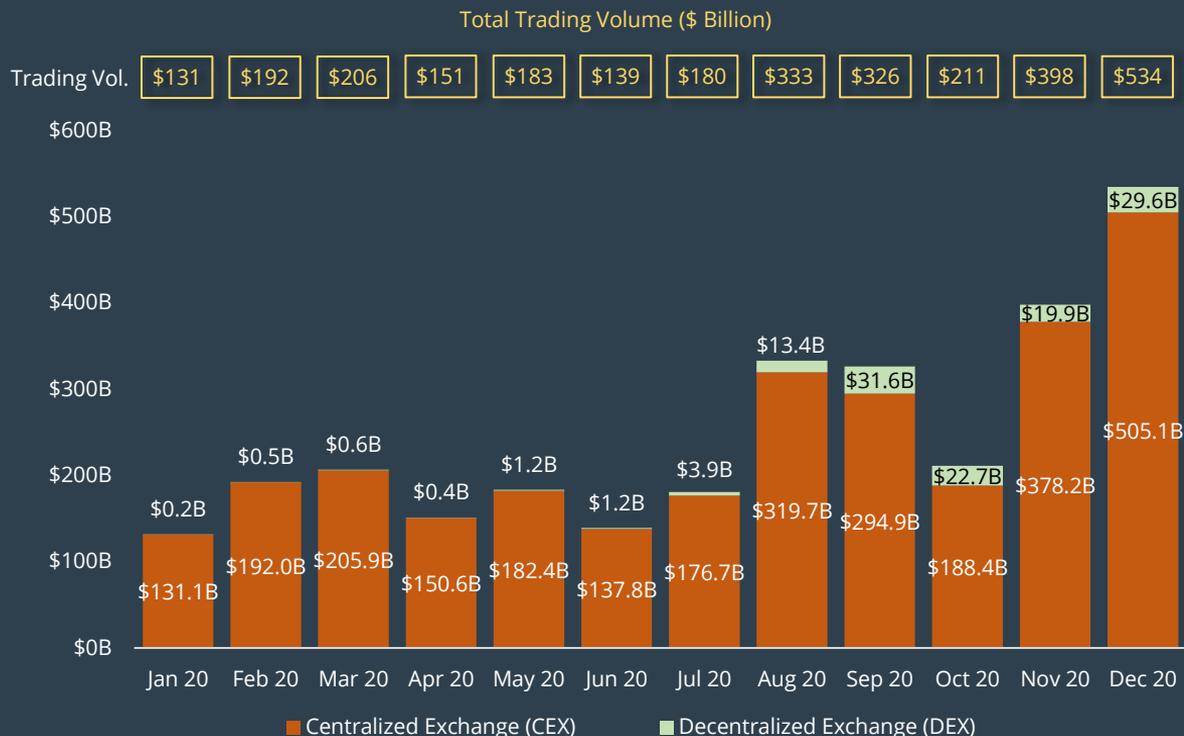
The system starts with a 100% USDC collateral ratio. Every hour, if FRAX stays at or above \$1, the collateral ratio will go down by 0.25% and more FXS is needed to mint FRAX.

EXCHANGES

2020 Top-9 Cryptocurrency Exchanges

Trading volumes of CEXs and DEXs grew by \$403 billion in 2020

Top-9 CEX + DEX Trading Volume (Jan - Dec 2020)



+307%

Total Exchange Volume Growth in 2020

For 2020, trading volumes across the top-9 centralized and decentralized exchanges **grew by \$403 billion** to \$534 billion (+307%).

This explosive growth was mainly driven by CEXs who accounted for **93% of the year's increase**. DEXs however, recorded an exponential **17,989% growth**, reaching **\$29 billion** in trading volume in December, up from a modest \$163 million in January.

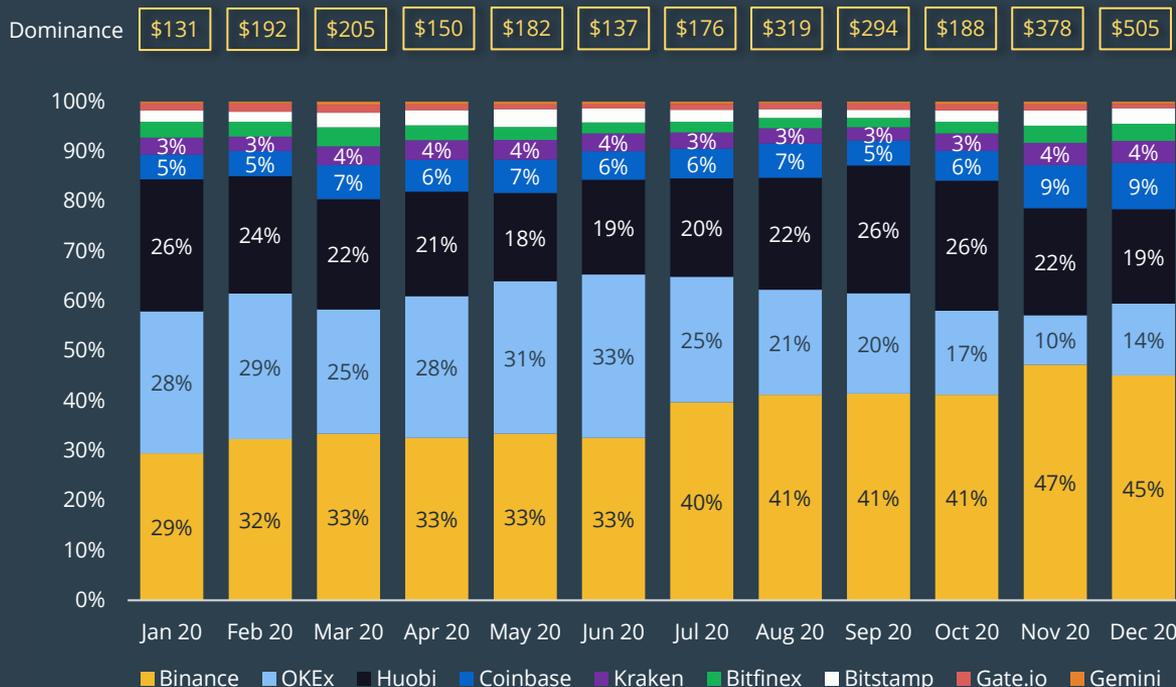
Notwithstanding, DEXs remain **behind** CEXs. Throughout the year, the top-9 DEX-CEX ratio **increased steadily** from 0.12% in January to a **high of 10.74%** in September, before **dropping to 5.53%** in December.

2020 Top-9 Centralized Exchanges (CEX)

Binance maintained its market leadership as OKEx's and Huobi's dominance shrank

Top-9 CEX Trading Volume Dominance (Jan - Dec 2020)

Total Trading Volume (\$ Billion)



+285%

Top-10 CEX Total Trading Volume in 2020

Centralized exchanges almost **quadrupled in trading volume** since January, **growing by \$374 billion** to reach an **all-time high of \$505 billion** by the end of 2020.

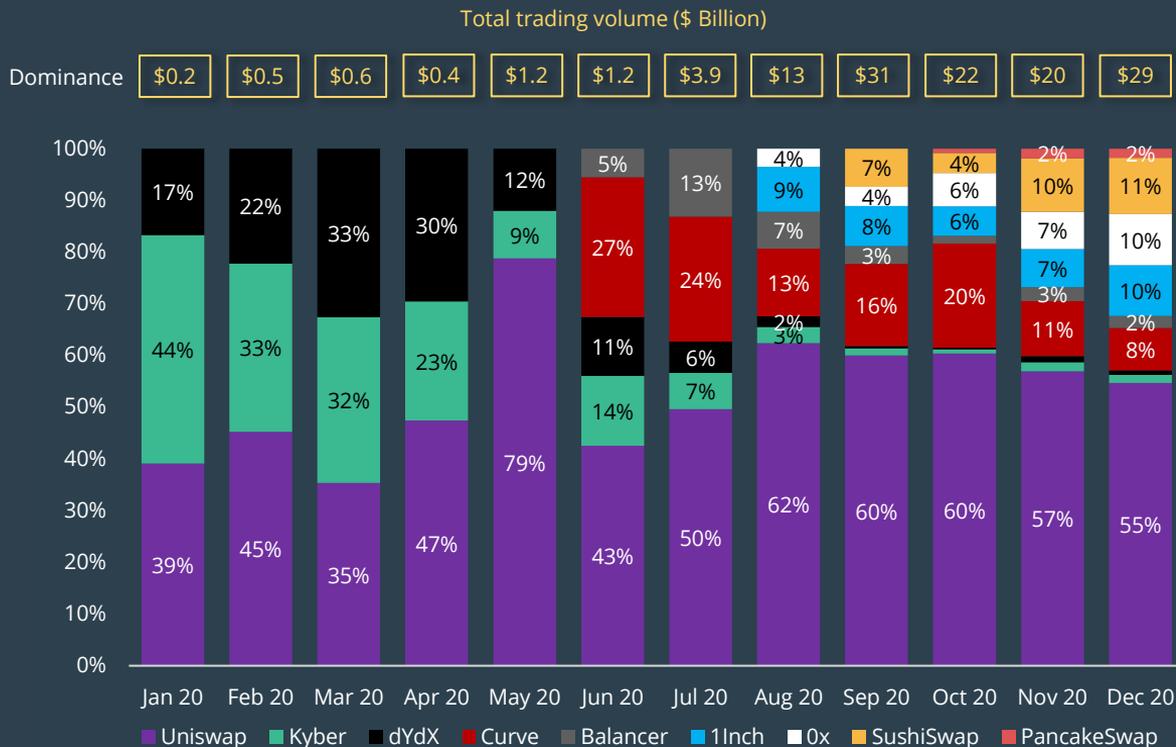
Binance contributed the lion's share of this growth with a **\$189 billion** increase in trading volume (**+51%**), followed by Huobi with **\$61 billion (+16%)** and Coinbase with **\$40 billion (+11%)**.

In terms of dominance, Binance was the clear **winner** in 2020, solidifying its lead by a staggering **16% to 45%**. The biggest loser was OKEx, which saw its **dominance fall** by about half from **28% to 14%**. Huobi meanwhile, suffered a moderate **7% loss**.

2020 Top-9 Decentralized Exchanges (DEX)

Uniswap retained its lead, Kyber and dYdX's market share eroded to new entrants

Top-9 DEX Trading Volume Dominance (Jan - Dec 2020)



17,989%
Top-9 DEX Total Trading Volume Growth in 2020

2020 saw DEX trading volume **grew exponentially** by an astounding **180 times** from **\$163 million to \$29 billion** by December.

Uniswap **maintained its lead throughout 2020** as the largest contributor to trading volume with **\$16 billion (55% dominance)** in December.

Kyber and dYdX however, saw their share **decrease significantly (-42% and -15%)**.

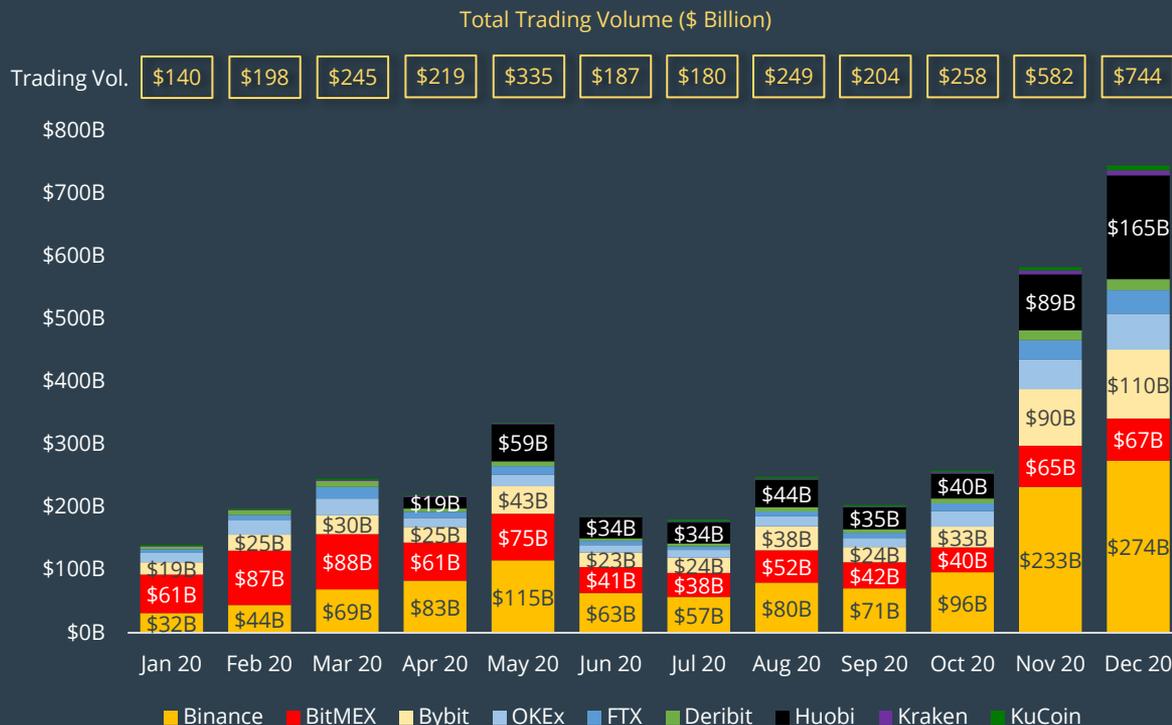
Overall, DEX markets are **now more competitive** due to new entrants such as Curve, Sushiswap, 0x and Balancer.

Top-9 DEX as of 1st January 2021 - Uniswap, Curve, SushiSwap, 0x, Balancer, Kyber Network, 1Inch, dYdX, PancakeSwap

2020 Derivatives Exchanges – Bitcoin Perpetual Swaps Volume

BTC perpetual swaps volume reached a staggering \$3.5 trillion in 2020

Aggregate Monthly Bitcoin Perpetual Trading Volume (Jan – Dec 2020)



531%

Top-9 Bitcoin Perpetual Swap Trading Volume Growth in 2020

Bitcoin perpetual swaps trading volumes across the top-9 derivative exchanges **grew from \$140B in January to \$744B in December, a 531% growth in 2020.**

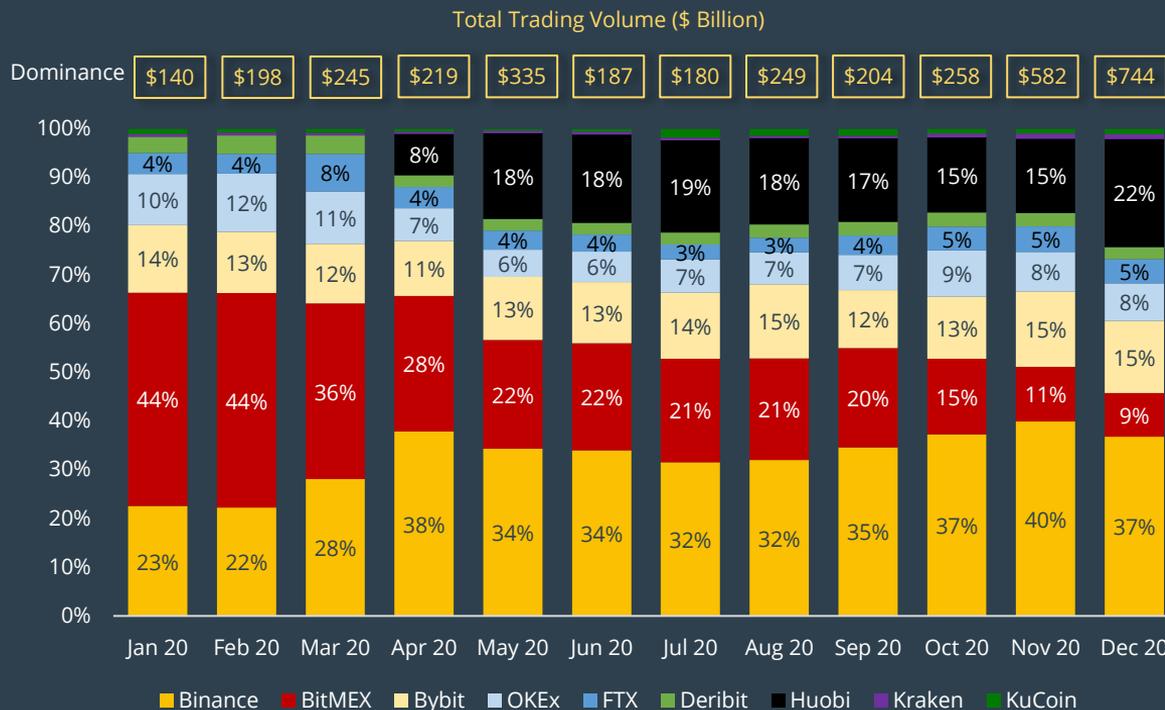
Binance contributed the most to this growth at **40% (+\$242B)**, followed by Huobi at **27% (+\$165B)**.

Volume has surged in November and December 2020, coinciding with Bitcoin **breaching All-Time-High (ATH)** for the first time in 3 years.

2020 Derivatives Exchanges – Bitcoin Perpetual Swaps Volume

Binance maintains its lead, Bitmex falters, Huobi grows faster

Aggregate Monthly Bitcoin Perpetual Volume Dominance (Jan – Dec 2020)



BitMEX's fall from grace is notable, as it **dropped from 44% market share to 9% by the end of 2020.**

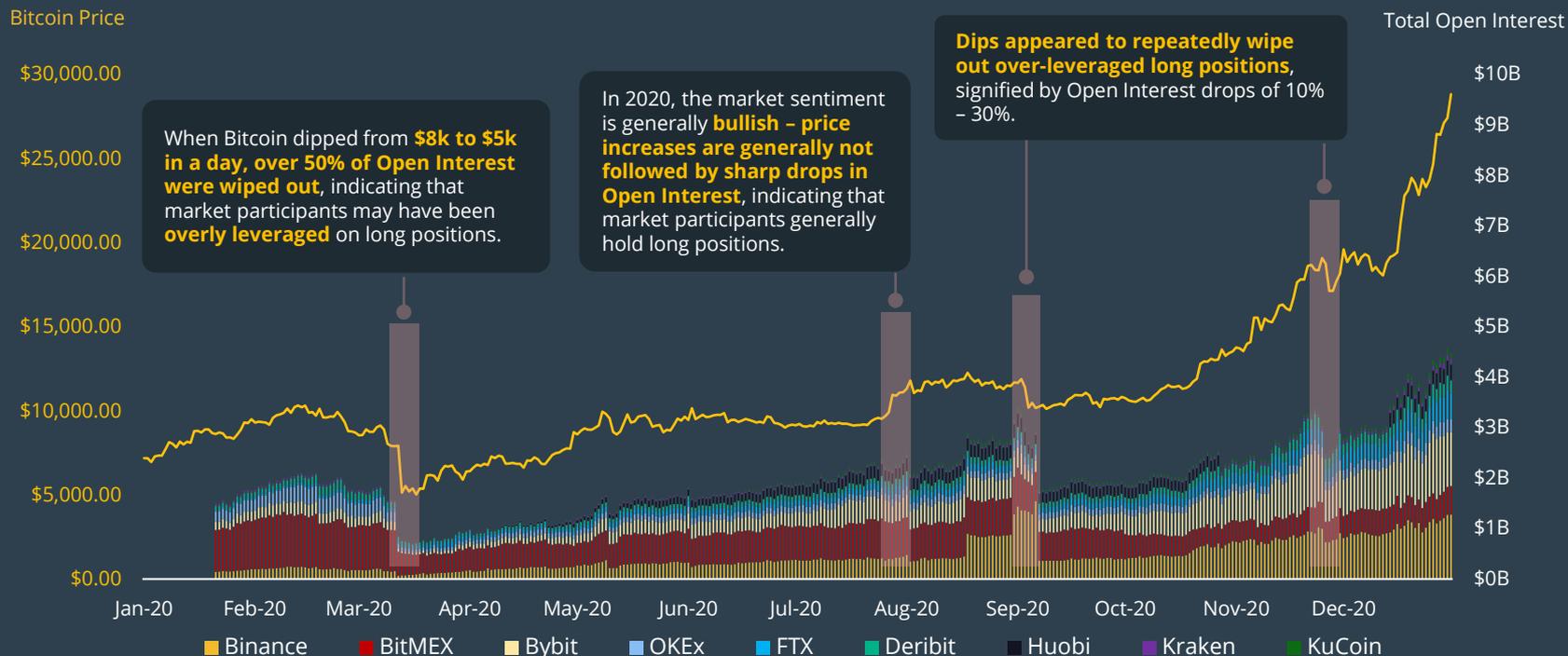
Binance has been cementing its number 1 lead since Bitmex's fall, **maintaining dominance within the 40% range.**

Huobi launched its derivatives segment in 2020 and **rose to the number 2 within a year**, commanding 22% of market share at the end of 2020, signifying China's big appetite for Bitcoin perpetual swap.

2020 Derivatives Exchanges – Bitcoin Perpetual Swaps Open Interest

BTC's positive correlation to its Open Interest suggests a bullish sentiment in 2020

Aggregate Monthly Bitcoin Perpetual Open Interest (Jan – Dec 2020)





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