

Xangle Research

# De-fi in 2Q20

Analysis on Ethereum and other ERC-20 On-Chain Data



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# Defi in 2Q20, dejavu of 2017 ICO market boom?

Thank you once again for your access to Xangle's latest report. My name is Jehn Kim, research analyst of Xangle.

With the Covid-19 pandemic sweeping across the finance floor, marking a period of 'Black Thursday', the Bitcoin price also dropped a massive 40% within a single day.

However, the rapid recovery equivalent to its drop back in March brought back the price rate to its earlier state.

To your surprise, neither 'Covid-19' nor 'Bitcoin' made it to the 2020 keywords.

As you may already know, 'De-fi' was the hottest keyword in second quarter of 2020 in the Cryptocurrency market.

De-fi, also known as 'decentralized finance', is cryptocurrency financial service including deposits, stakings or loans based on smart contract that does not require central institutions or middleman. De-fi has drawn more attentions than ever before after exponential price increase of COMP token, governance token for 'Compound', which officially launched in June.

Amidst various interpretations and controversies surrounding De-fi,

Xangle's research team has conducted quantitative analysis on De-fi to see how the 'De-fi boom' came about.

We hope you gain some helpful insights and data for your investments through this report.

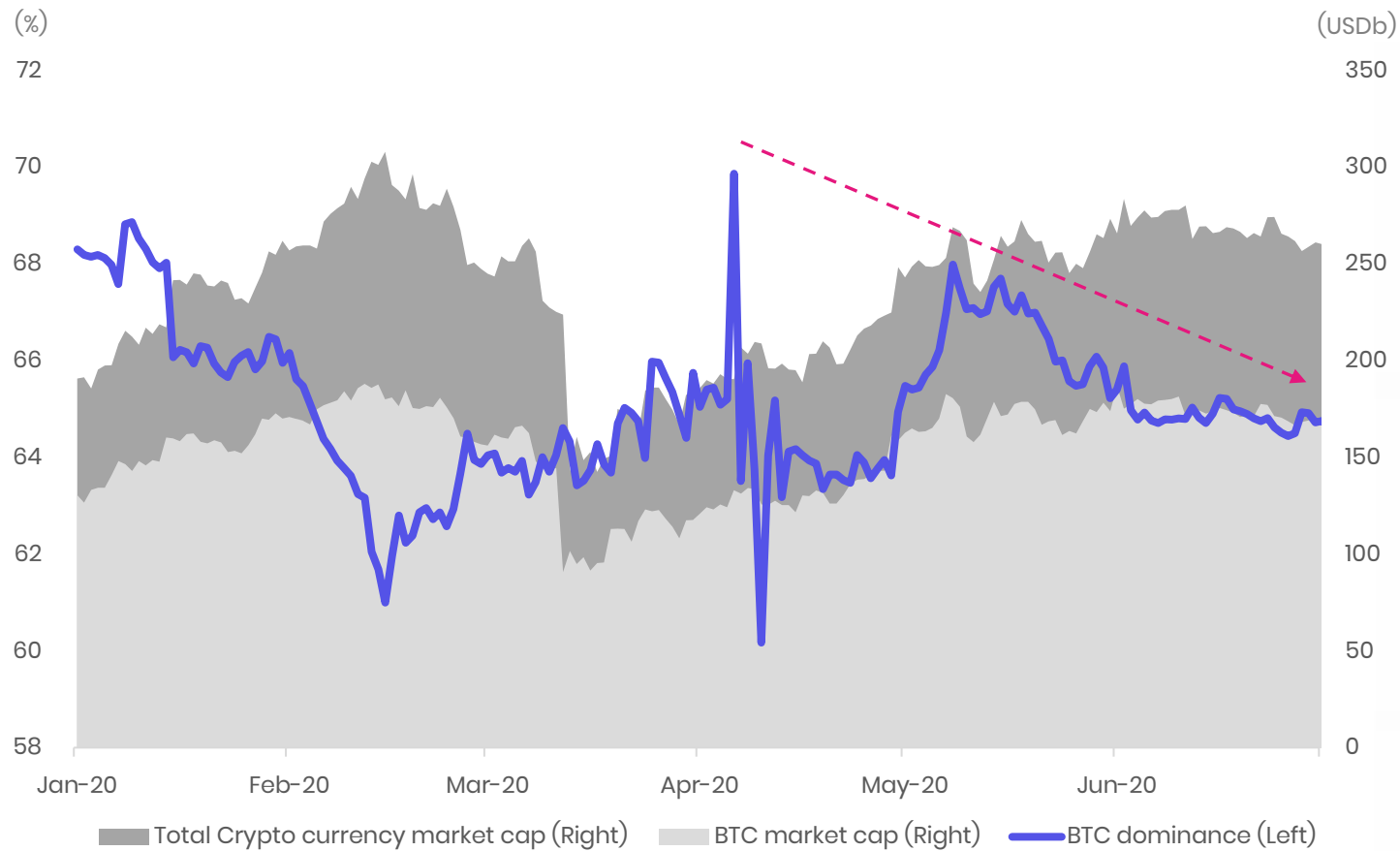
Please feel free to email [research@xangle.io](mailto:research@xangle.io) for additional information and questions.

# **1. Data Analysis on Major On-Chain in 2Q20: Bitcoin vs Ethereum**

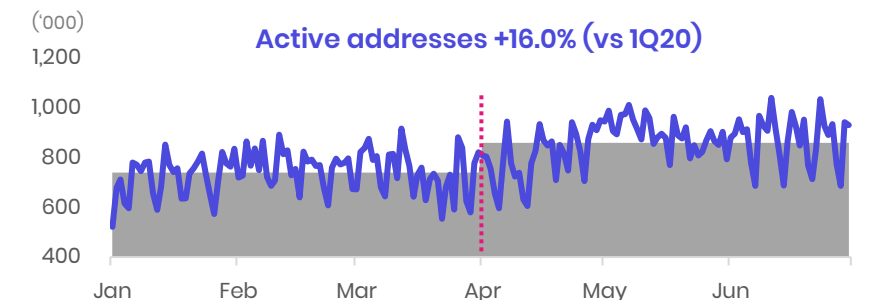
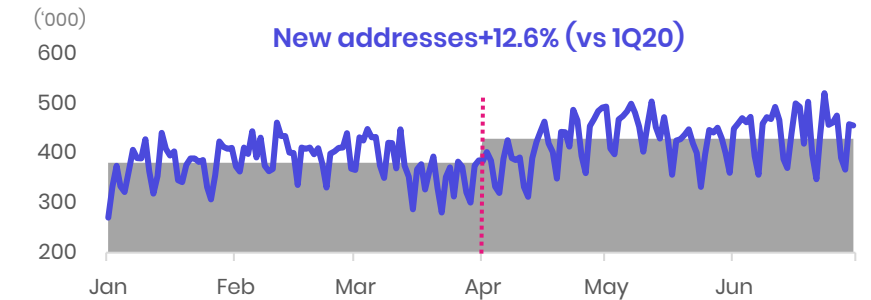
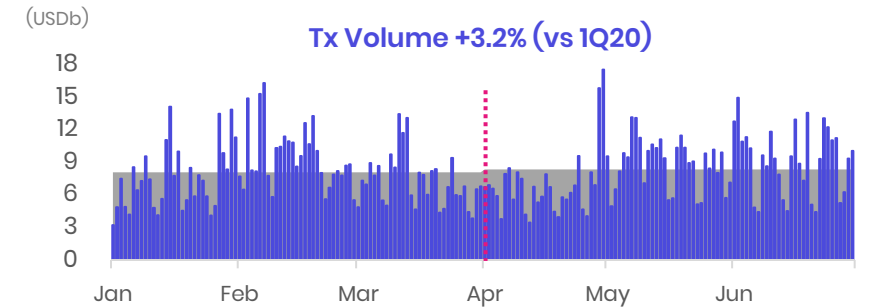
# Bitcoin Underperformed in Comparison to the Crypto market in 2Q20

Though BTC price and on-chain status recovered after down fall in March due to COVID-19

## Market Cap: BTC vs Cryptocurrency (2020)



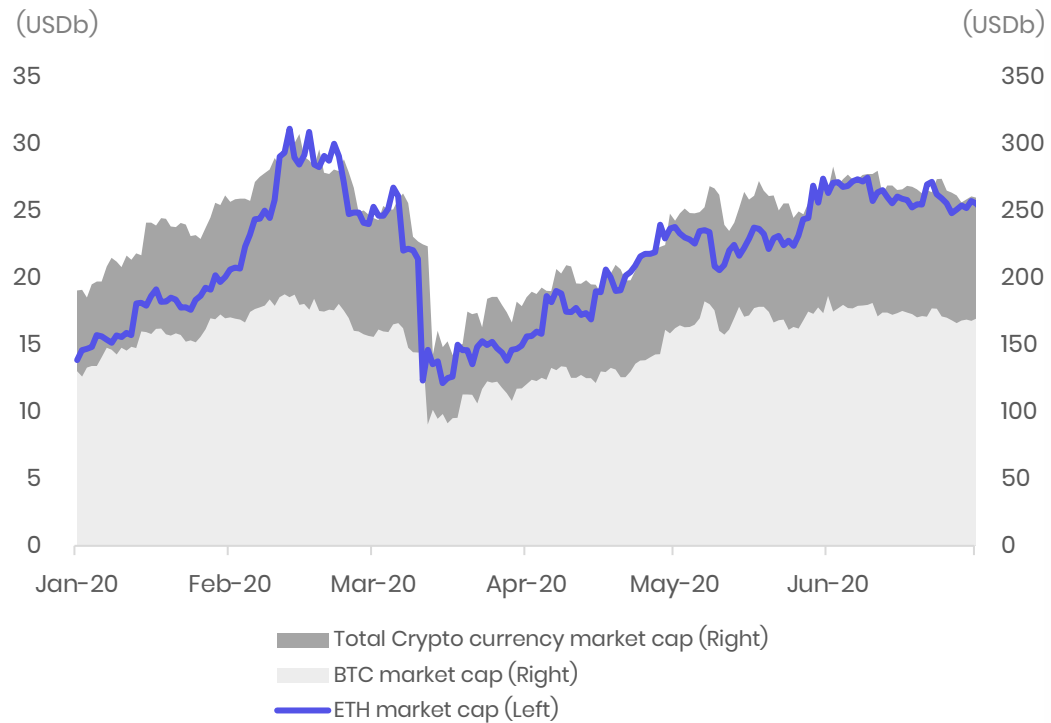
## BTC On-Chain Status



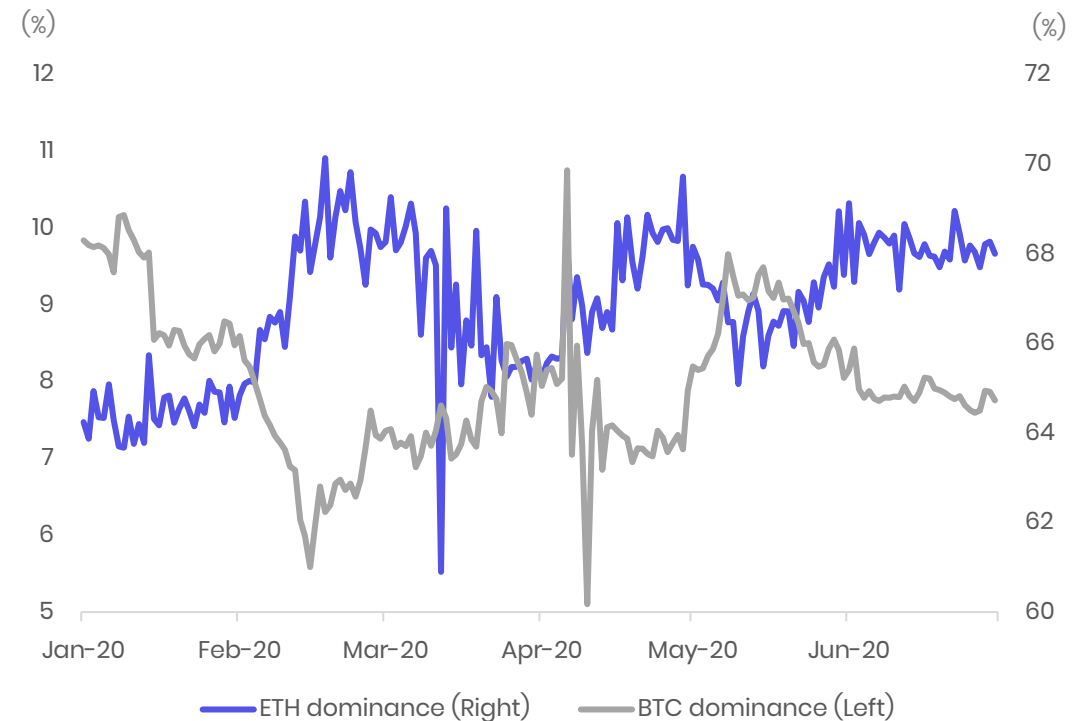
# Bitcoin Also Underperformed Against Ethereum in 2Q20

BTC and ETH price increased by 38% and 67% respectively in 2Q20

## Market Cap: BTC vs ETH



## Market Dominance: BTC vs ET

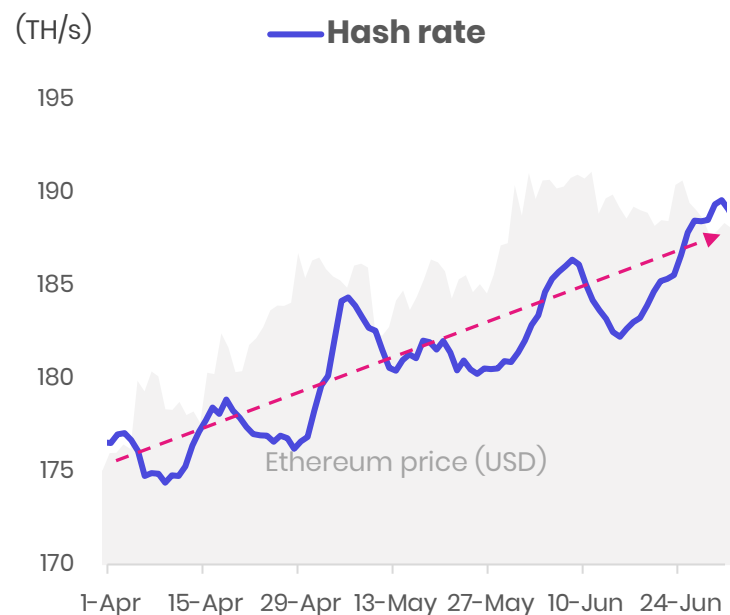


# On-Chain Data Trends of Ethereum Network\* shown **Highly Active in 2Q20**

Price of Ethereum in 2Q20 also increased by 66.9%

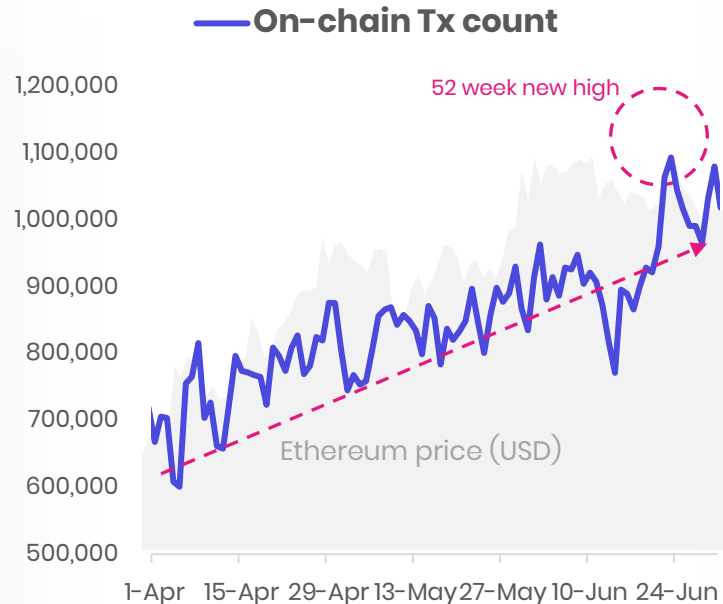
Hash rate: +7.4%

Recorded 90-day new high 4 times in June



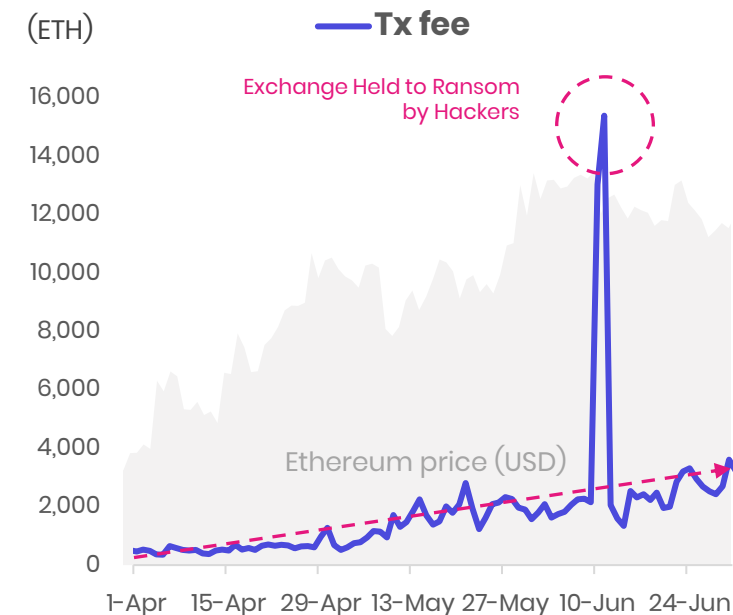
On-chain Tx count: +61.7%

Recorded 52 week new high at June 23<sup>rd</sup>



Tx fee: +687.9%

Transaction fee also showed uptrend

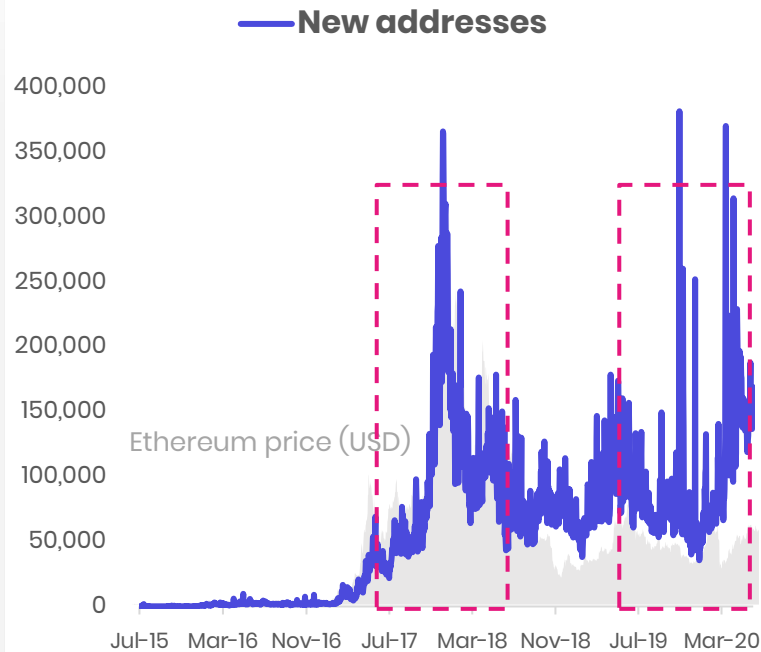


\* **Note** : Ethereum network on-chain data includes Ethereum and other ERC-20 tokens

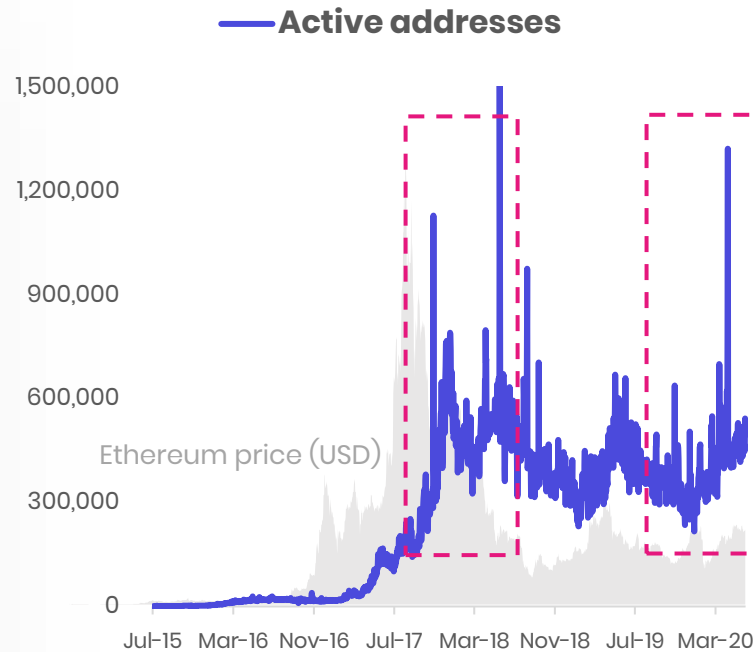
## Partial On-Chain Network Activity Trends of Ethereum\* Recorded Bull Cycle for 2017–2018

Considering Ethereum's price peak to \$1,396 in 2017–2018, the fact that it reached up to only \$230 in 2Q20, Ethereum's on-chain indicator activity needs to be reconsidered.

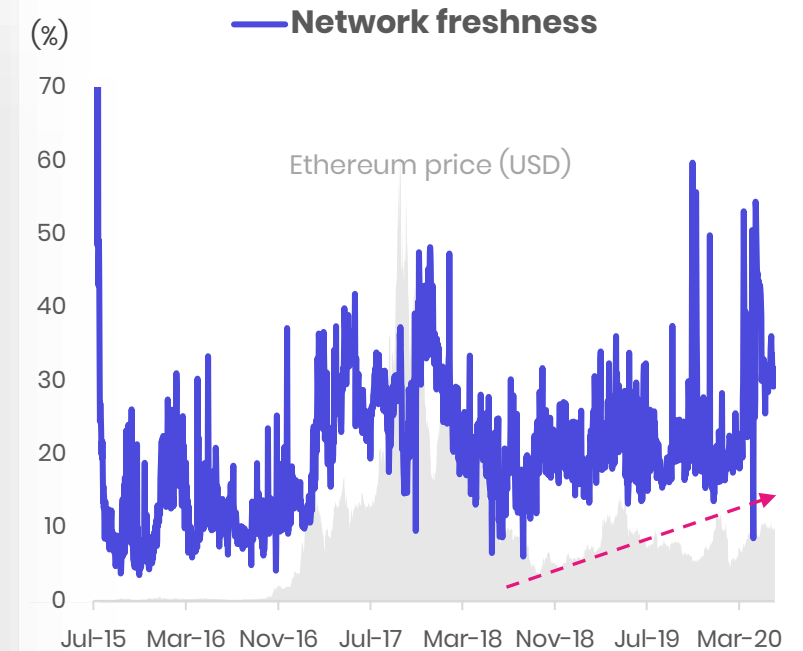
**New addresses: +134.8%**



**Active addresses: +33.6%**



**Network Freshness: Uptrend in 2Q20**

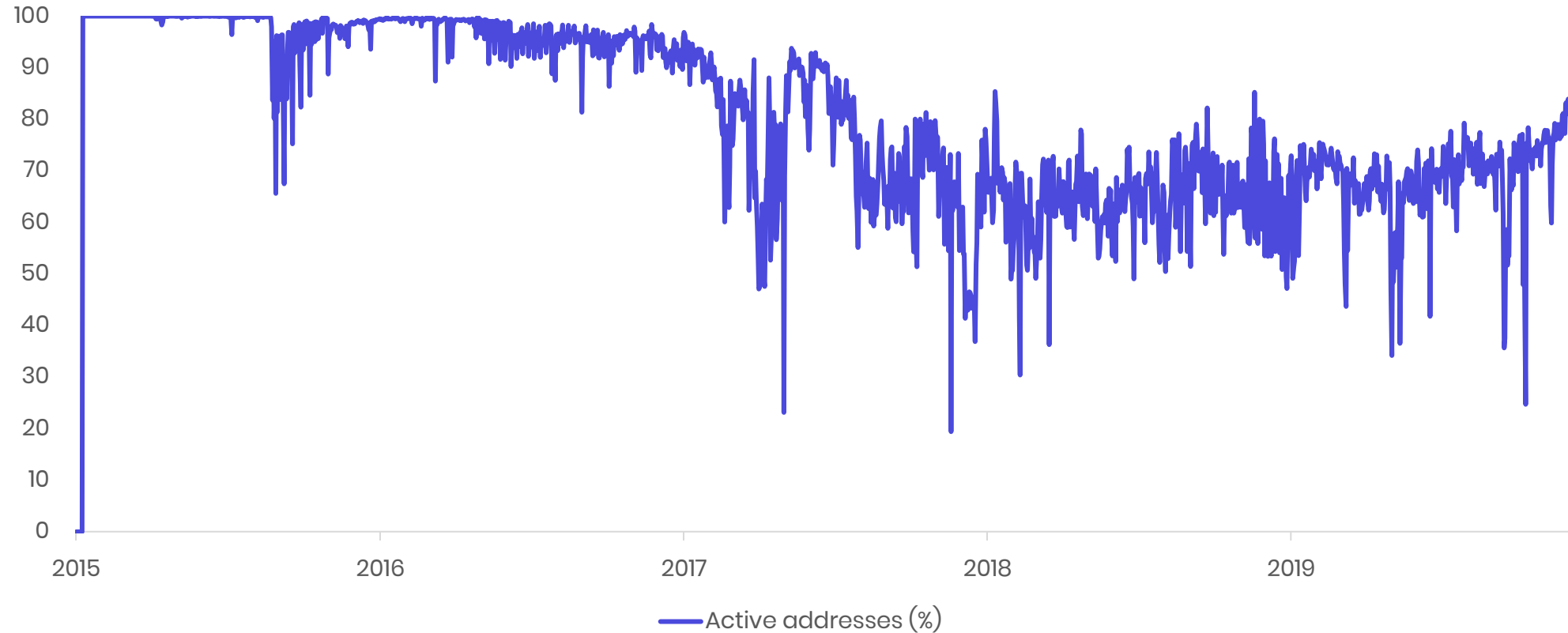


\* **Note** : Ethereum network on-chain data includes Ethereum and other ERC-20 tokens



# Ethereum's **Adoption** has Remained Stable Since 2017

The proportion of ERC-20 among Ethereum network's active addresses continues to expand



\* **Note** : Active addresses of Ethereum / Active addresses of Ethereum Network (%)

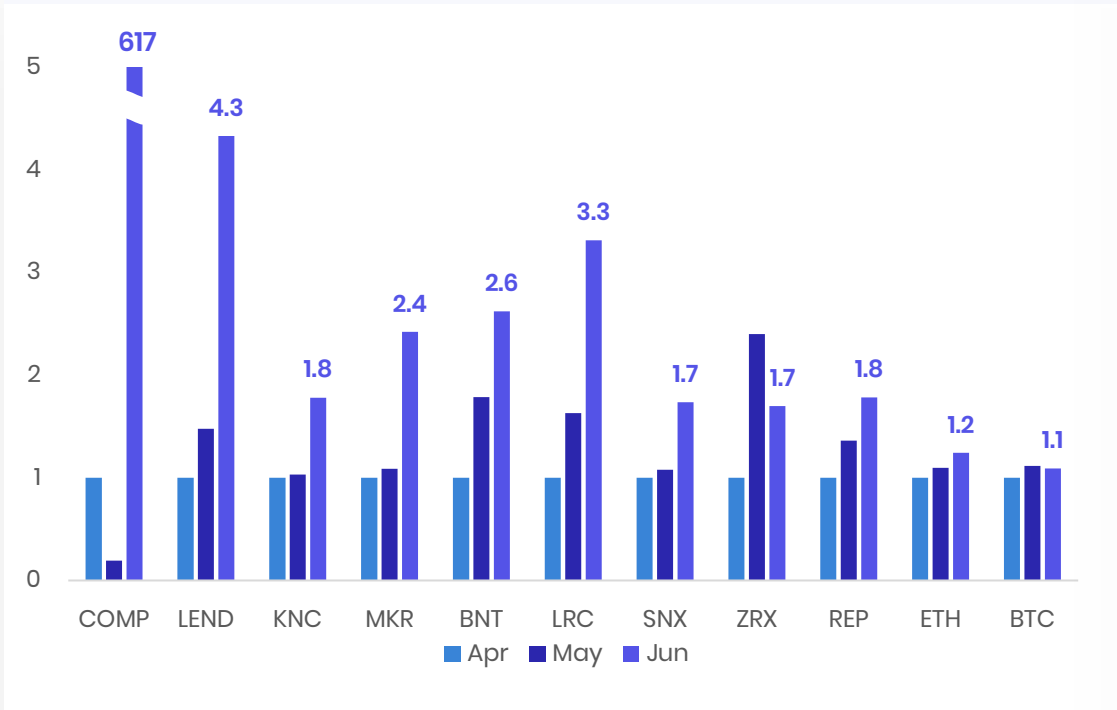
## **2. Top ERC-20 Tokens Based on On-Chain Data Activity: De-fi**

# De-fi Was the Highlights Among ERC-20

De-fi tokens increased more than Ethereum and Bitcoin in Active Addresses. The majority of the De-fi token prices also outperformed Ethereum and Bitcoin.

## Number of Active Addresses of De-fi Token Beats That of ETH & BTC

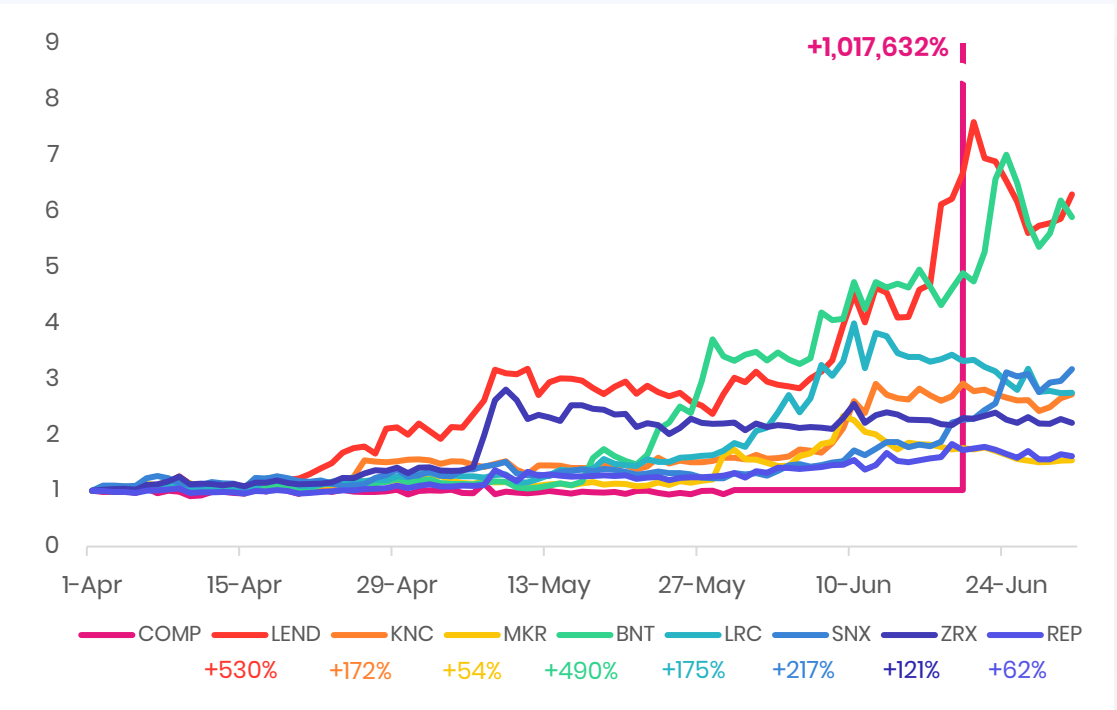
Monthly average of active addresses (2Q20)



\* Note : April as 1

## Price of Most De-fi Token Tops ETH & BTC

BTC and ETH price up 38% and 67% respectively (2Q20)



\* Note : April 1st as 1

# Uptrend of Stablecoins and Expansion of De-fi tokens

While active addresses of **exchange tokens** falling back in 2Q20

## Top ERC-20 Active Addresses over time

	1Q19		2Q19		3Q19		4Q19		1Q20		2Q20
BAT	121,454	USDT	286,637	USDT	4,141,630	USDT	3,523,672	USDT	4,231,983	USDT	9,315,319
ZRX	78,191	BAT	270,900	DAI	368,321	DAI	236,973	PAX	388,763	PAX	1,237,929
DAI	73,254	DAI	135,886	BAT	147,733	BAT	145,371	DAI(MCD)	325,496	DAI(MCD)	343,315
OMG	55,380	ZRX	88,823	LINK	132,894	LINK	134,650	LINK	223,789	LINK	311,080
HT	55,166	OMG	79,689	PAX	91,172	PAX	112,258	ZRX	73,282	ZRX	123,320
CRO	31,914	HT	74,927	ZRX	63,821	ZRX	66,757	KNC	51,359	KNC	82,730
REP	28,284	LINK	65,177	OMG	53,385	OMG	36,401	OKB	43,080	OMG	71,573
MKR	25,958	PAX	58,552	HT	33,755	MKR	30,488	ETHBNT	41,827	MKR	37,472
KNC	21,370	CRO	51,501	MKR	33,081	SNX	21,527	OMG	41,455	COMP	37,148
LINK	19,078	REP	32,488	REP	22,221	OKB	20,411	DAI	38,678	SNX	36,860
BNT	18,987	MKR	30,128	KNC	17,625	REP	19,631	SNX	30,854	CRO	36,162
PAX	18,205	KNC	23,124	BNT	14,913	KNC	17,709	cDAI	30,106	REP	28,000
USDT	11,029	BNT	20,088	CRO	13,282	BNT	17,078	HT	26,491	LEND	27,451
LEND	5,262	LEND	6,126	WBTC	7,392	HT	14,515	MKR	26,446	BNT	26,947
SNX	2,096	SNX	4,747	cETH	7,237	CRO	12,010	REP	25,888	WBTC	20,608
WBTC	1,635	WBTC	3,989	HEDG	6,818	cETH	8,156	BNT	15,527	LRC	19,636
FTT	1,043	FTT	3,216	SNX	6,296	WBTC	6,419	CRO	13,198	cDAI	19,525
				LRC	5,943	LRC	5,947	WBTC	10,391	BAT	17,131
				OKB	4,374	LEND	5,846	cETH	10,033	BUSD	17,131
				LEO	4,327	HEDG	4,406	LRC	9,445	cBAT	15,468

\* **Note** : Based on top market cap projects of ERC-20 and de-fi as of July 2020

# Uptrend of Stablecoins and Expansion of De-fi Tokens

While new addresses of **exchange tokens** falling back in 2Q20

## Top ERC-20 New addresses over time

	1Q19		2Q19		3Q19		4Q19		1Q20		2Q20
BAT	72,081	BAT	173,915	USDT	1,040,512	USDT	1,079,975	USDT	1,207,055	USDT	2,828,564
ZRX	40,271	USDT	133,137	DAI	221,983	DAI	101,996	PAX	233,216	PAX	650,874
DAI	16,909	ZRX	47,143	BAT	81,983	BAT	68,373	DAI(MCD)	102,601	LINK	145,285
OMG	15,484	DAI	41,251	LINK	56,506	PAX	56,714	LINK	95,281	DAI(MCD)	118,614
CRO	12,839	HT	33,017	PAX	43,237	LINK	55,669	BAT	844,84	BAT	116,719
HT	8,784	PAX	30,183	ZRX	28,517	ZRX	29,991	ETHBNT	40,651	ZRX	60,998
PAX	8,722	LINK	27,341	OMG	19,425	OMG	11,469	OKB	34,407	KNC	37,064
REP	7,874	OMG	26,552	HT	17,770	MKR	10,054	ZRX	30,895	OMG	27,467
MKR	6,625	REP	12,259	MKR	15,412	REP	7,539	KNC	17,422	COMP	17,024
KNC	5,541	MKR	7,079	REP	7,877	OKB	7,527	OMG	10,592	REP	12,308
LINK	4,901	CRO	6,770	KNC	4,034	HT	5,588	REP	10,009	MKR	12,088
USDT	3,424	KNC	6,230	AMPL	3,612	SNX	5,353	cDAI	9,956	CRO	10,614
BNT	2,982	BNT	3,240	CRO	2,617	KNC	3,835	HT	8,344	cBAT	8,130
LEND	1,688	SNX	1,800	cETH	2,401	cETH	2,956	MKR	6,675	BUSD	7,166
SNX	602	LEND	1,752	BNT	1,935	CRO	2,554	DAI	6,073	LRC	7,098
WBTC	585	FTT	1,013	OKB	1,805	BNT	2,159	SNX	5,886	BNT	6,397
FTT	285	WBTC	719	SNX	1,677	cBAT	1,880	CRO	2,458	LEND	6,340
				LRC	1,592	cZRX	1,772	BUSD	2,455	cDAI	5,720
				WBTC	1,126	cWBTC	1,610	BNT	2,394	cETH	5,282
				LEO	977	CREP	1,526	cETH	2,394	WBTC	5,226

\* **Note** : Based on top market cap projects of ERC-20 and de-fi as of July 2020

# Uptrend of Stablecoins and expansion of De-fi tokens

While on-chain transfer counts of **exchange tokens** falling back in 2Q20

## Top ERC-20 Tokens Based on Transfer counts

	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20					
BNT	354,521	DAI	627,588	USDT	6,896,270	USDT	8,068,910	USDT	16,566,685		
DAI	290,440	USDT	563,018	DAI	891,711	LINK	745,799	LINK	1,081,195	PAX	1,585,212
BAT	183,876	BAT	369,967	LINK	484,621	DAI	651,164	DAI (MCD)	576,284	DAI (MCD)	826,180
ZRX	105,855	BNT	330,599	BAT	177,408	BAT	198,209	PAX	576,284	LINK	826,180
MKR	99,915	LINK	141,397	BNT	176,936	BNT	160,277	BAT	301,485	BAT	401,688
OMG	92,551	HT	134,082	PAX	121,412	PAX	157,092	DAI	178,907	BNT	206,038
HT	63,104	OMG	129,949	MKR	100,539	MKR	115,899	KNC	158,772	ZRX	182,607
KNC	58,793	ZRX	113,315	ZRX	82,730	ZRX	99,719	BNT	156,277	KNC	161,421
REP	46,594	MKR	111,169	OMG	78,195	SNX	60,452	ZRX	124,542	MKR	111,485
CRO	33,644	PAX	81,733	HT	59,455	OMG	56,639	MKR	93,695	OMG	111,199
PAX	29,966	KNC	57,984	KNC	42,571	KNC	54,060	SNX	76,050	WBTC	107,979
LINK	29,013	CRO	56,543	CRO	32,527	REP	46,788	REP	74,707	COMP	100,096
USDT	17,134	REP	46,491	REP	31,346	CRO	26,595	cDAI	74,348	SNX	97,997
LEND	5,231	WBTC	14,304	WBTC	29,327	WBTC	24,083	OMG	65,458	LEND	69,383
WBTC	3,490	LEND	6,021	cETH	14,880	HT	23,548	WBTC	56,305	REP	62,170
SNX	1,854	SNX	5,646	SNX	10,748	OKB	20,390	HT	56,121	CRO	52,133
FTT	795	FTT	3,038	AMPL	8,193	LRC	14,338	ETHBNT	43,232	cDAI	47,074
				HEDG	6,961	cETH	14,178	OKB	40,575	LRC	38,036
				LEO	6,547	LEND	9,025	LRC	25,673	BUSD	33,850
				OKB	6,499	AMPL	6,912	LEND	23,423	DAI	30,056

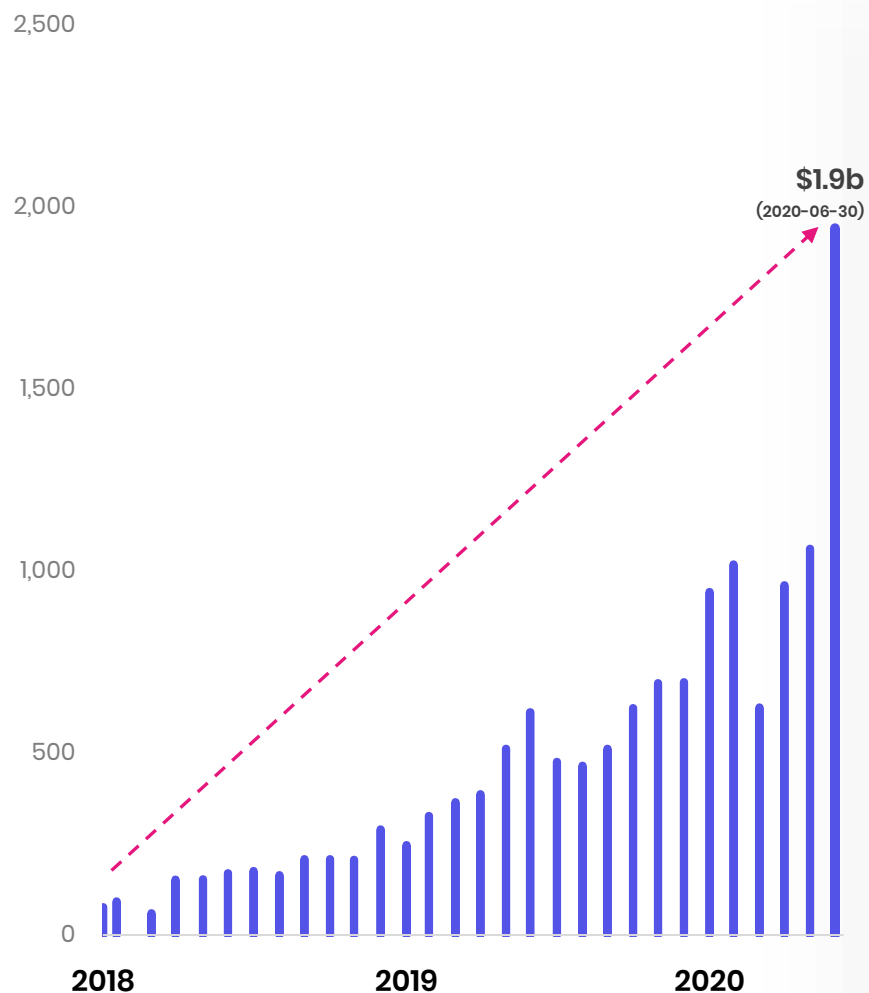
\* **Note** : Based on top market cap projects of ERC-20 and de-fi as of July 2020

# De-fi in 2Q20











Total value locked in De-fi increased by 2,524% since Jan 2018

\* Source : Defipulse.com

## Total Value Locked (USD) in De-Fi



## All time ranking

	Name	Category	Locked(USD)
1	 <b>Compound</b>	Lending	\$700.1M
2	 <b>Maker</b>	Lending	\$632.8M
3	 <b>Synthetix</b>	Derivatives	\$412.8M
4	 <b>Aave</b>	Lending	\$215.4M
5	 <b>Balancer</b>	DEXes	\$194.1M
6	 <b>InstaDApp</b>	Lending	\$193.3M
7	 <b>Wbtc</b>	Assets	\$106.1M
8	 <b>Curve Finance</b>	DEXes	\$78.5M
9	 <b>Flexa</b>	Payments	\$64.5M
10	 <b>dYdX</b>	Lending	\$35.4M

## Lending



Compound



Maker

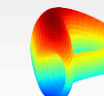


Aave

## Dexes



Balancer



Curve Finance



Bancor

## Derivatives



Synthetix



Nexus Mutual



MCDEX

## Payments



Flexa



Lightning Network



xDai

## Assets



WBTC



RenVm



Set Protocol

**Vitalik Buterin: Co-founder of ETH**

“Honestly, I think we emphasize flashy defi things that give you fancy high interest rates way too much. Interest rates significantly higher than what you can get in traditional finance are inherently either temporary arbitrage opportunities or come with unstated risks attached.”

Twitter, 2020-06-21

**William Mougayar: CoinDesk columnist**

“Despite the increased attention and interest in DeFi, ‘DeFi Apps’ are far from appealing to mainstream audiences. They target existing crypto users.”

Twitter, 2020-06-27

**Charlie Lee: Litecoin creator**

“In a decentralized finance system with millions of smart contracts interacting with each other, the surface area of bugs is going to be so large that it is impossible to create something that is perfect. So there’s going to be a lot of money being stolen and that will never end.”

Interview, 2020-07-15

**Lihan Lee: Co-founder of CrossAngle**

“Although DeFi having its promising future, it still has various challenges to overcome for mass adoption. Especially, the industry needs to find real demand beyond the already existing crypto margin traders. The current boom in DeFi is a delusion based on an unsustainable level of interest rates and speculative opportunities for its governance token.”

Interview, 2020-07-20

**Carter Hoffman: Trade Finance Global writer**

“For DeFi, these include challenges (mentioned in report) reach into the legal sphere, and touch on interoperability as well as transaction speeds. Only by addressing and overcoming these challenges will DeFi reach the potential that seems to be all the buzz in the blockchain-verse.”

Trade Finance global, 2020-05-05

**Ryan Watkins: Research Analyst at Messari**

“Many DeFi tokens are up triple digits on the year, and excitement around these projects is reminiscent of the early days of the 2017 ICO boom.”

Messari, 2020-06-24



### **3. Analysis on De-fi Tokens: COMP, MKR & DAI, SNX, LEND and DEX Tokens**

# Compound

Robust on-chain growth with price spike among ERC-20 in 2Q20: New & Active addresses and transfer counts

## What is 'Compound'?

**Compound is an algorithmic money market protocol on Ethereum** that lets users earn interest or borrow assets against collateral. Anyone can supply assets to Compound's liquidity pool and immediately begin earning continuously-compounding interest. Rates adjust automatically based on supply and demand.

## Supplied asset balances are represented by cTokens:

representations of the underlying asset that earn interest and serve as collateral. Users can borrow up to 50-75% of their cTokens' value, depending on the quality of the underlying asset. Users can add or remove funds at any time, but if their debt becomes undercollateralized, anyone can liquidate; a 5% discount on liquidated assets serves as incentive for liquidators.

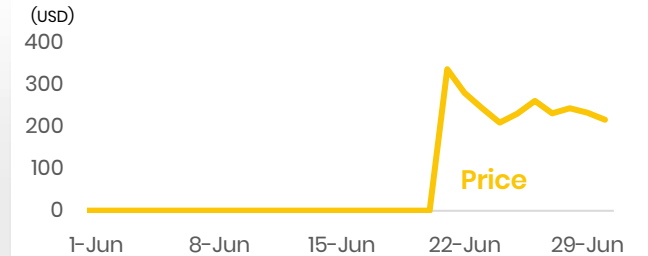
## What is 'COMP'?

Compound (COMP) is an **ERC-20 asset that empowers community governance of the Compound protocol**; COMP token-holders and their delegates debate, propose, and vote on all changes to the protocol.

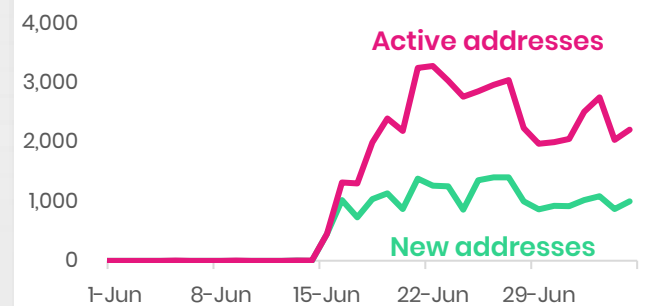
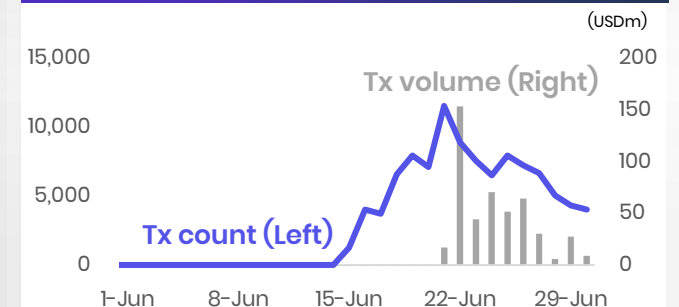
By placing COMP directly into the hands of users and applications, an increasingly large ecosystem will be able to upgrade the protocol and will be incentivized to collectively steward the protocol into the future with good governance.

Each day, approximately 2,880 COMP will be automatically distributed to users of the protocol when users interact with a Compound market.

## COMP Price



## COMP On-Chain

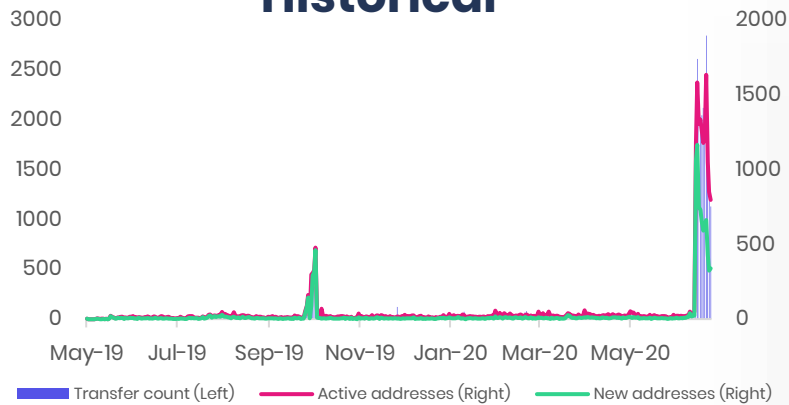


# cTokens

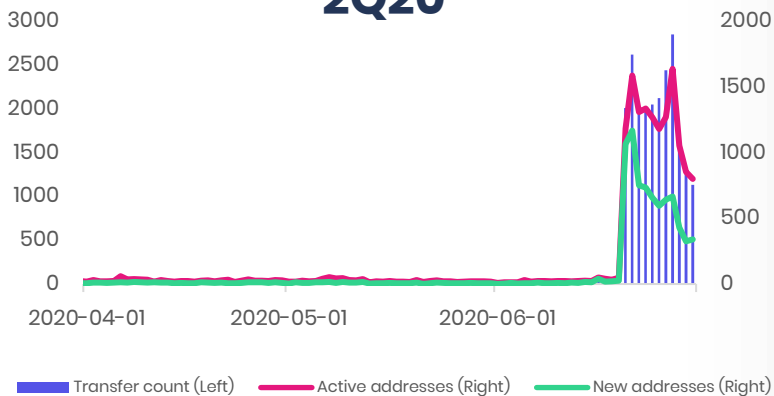
Due to increased in COMP, cTokens have also recorded an active on-chain data in 2Q20 and CBAT's on-chain data equally spiked in June 2020

## Compound Basic Attention Token (CBAT)

### Historical

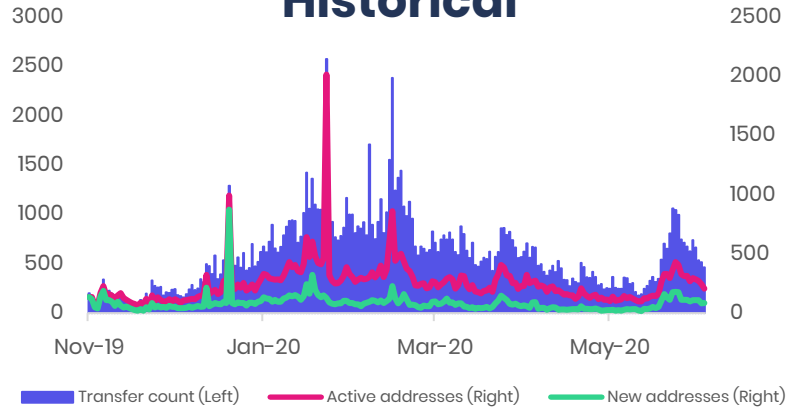


### 2Q20

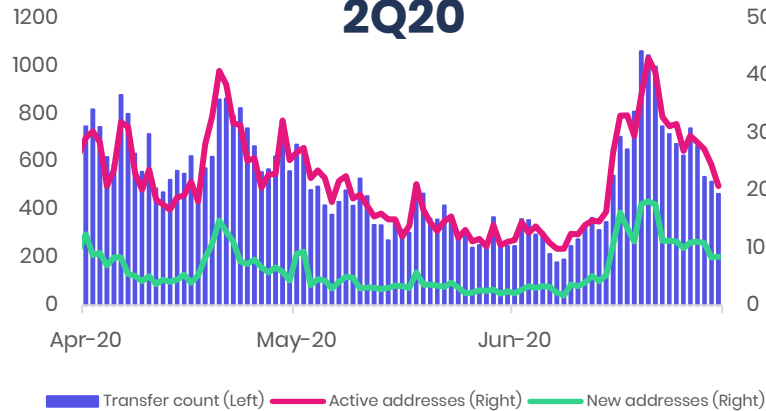


## Compound Dai (CDAI)

### Historical

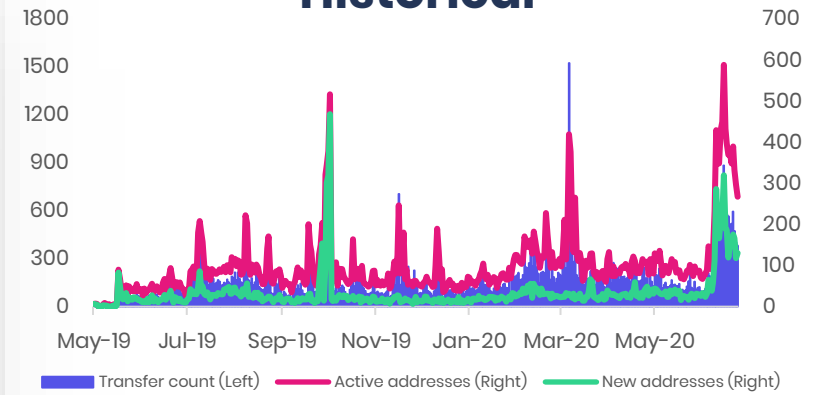


### 2Q20

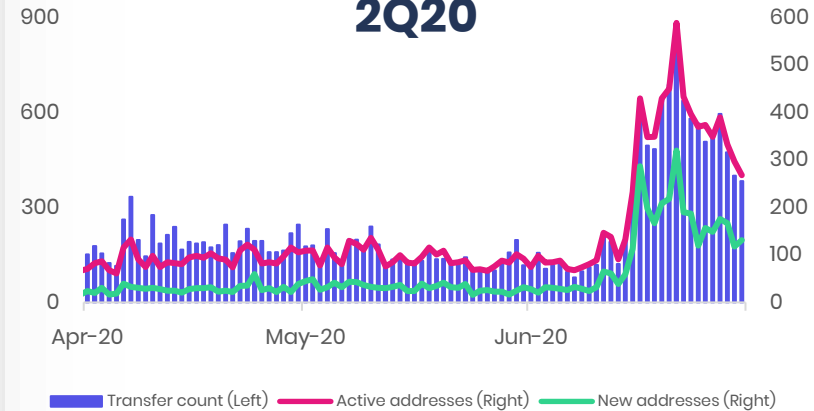


## Compound Ether (CETH)

### Historical



### 2Q20



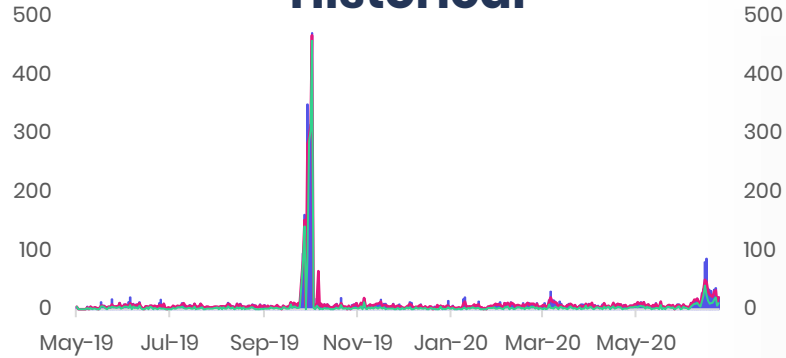
# cTokens

The majority of cTokens have shown high activity in June



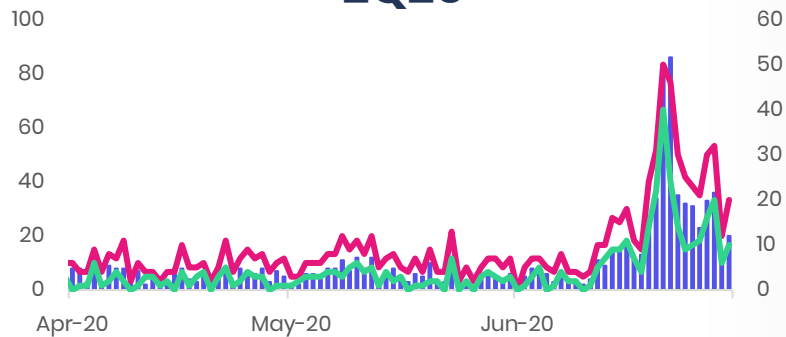
## Compound Augur (CREP)

### Historical



Transfer count (Left) Active addresses (Right) New addresses (Right)

### 2Q20

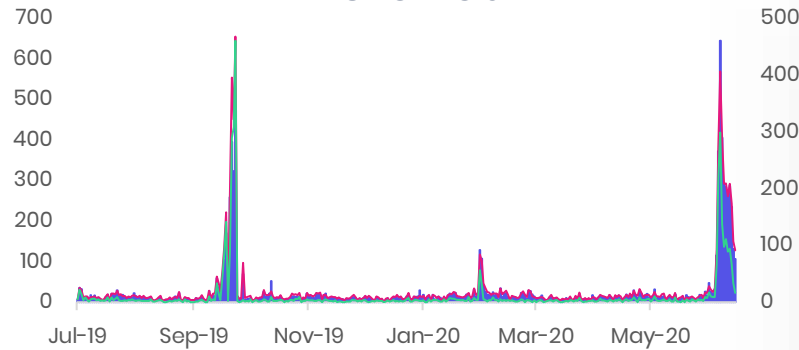


Transfer count (Left) Active addresses (Right) New addresses (Right)



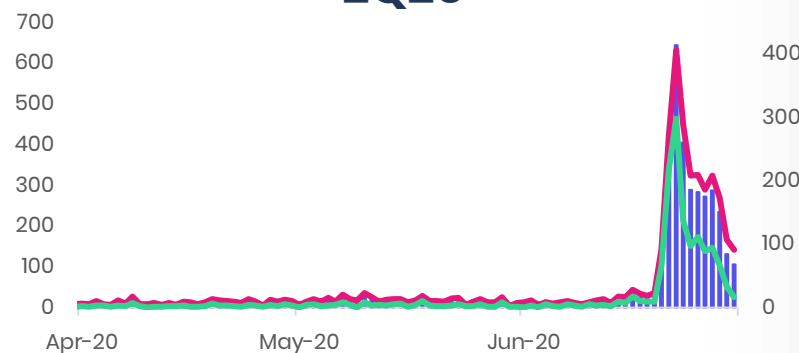
## Compound Wrapped BTC (CWBTC)

### Historical



Transfer count (Left) Active addresses (Right) New addresses (Right)

### 2Q20

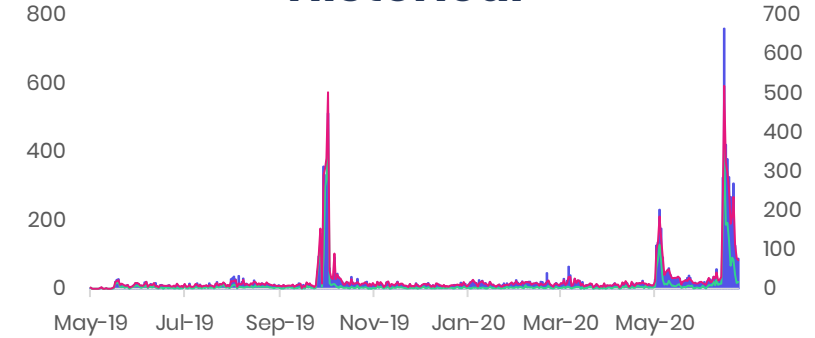


Transfer count (Left) Active addresses (Right) New addresses (Right)



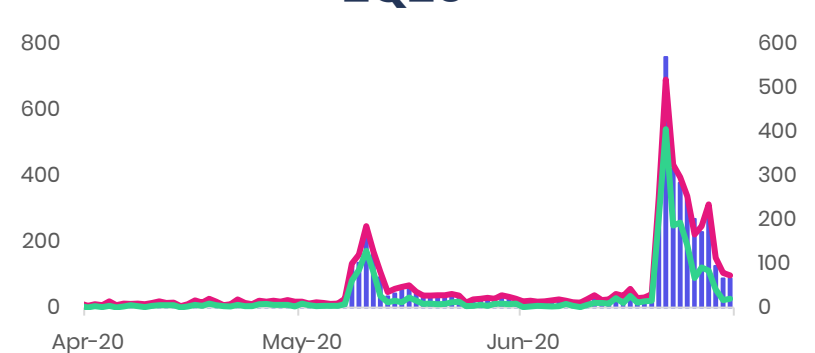
## Compound 0x (CZRX)

### Historical



Transfer count (Left) New addresses (Right) Active addresses (Right)

### 2Q20



Transfer count (Left) Active addresses (Right) New addresses (Right)

# MakerDAO & DAI

The most widely known de-fi tokens. DAI, used as collateral in various de-fi projects, recorded high on-chain activity in 2Q20.

## What is MakerDAO?

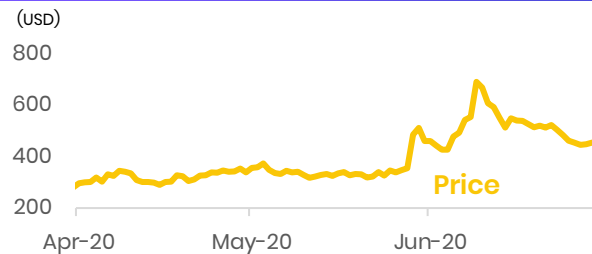
**MakerDAO is a decentralized and permissionless lending platform** that allows users to borrow its USD pegged stablecoin, called **Dai**, against their token assets and to achieve price stability in crypto, creating an opportunity to interact with decentralized applications without experiencing the volatility of the overall cryptocurrency market.

## What is 'MKR' & 'DAI'?

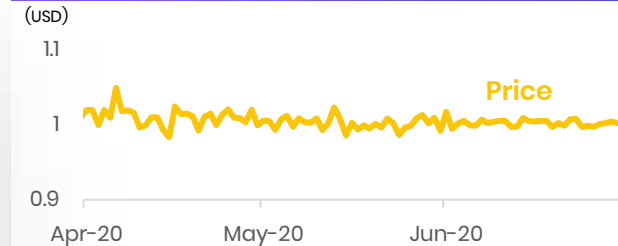
**MKR** is an ERC-20 token on the Ethereum blockchain and can not be mined. It's instead created/destroyed in response to DAI price fluctuations in order to keep it hovering around \$1 USD. MKR is used to pay transaction fees on the Maker system. Furthermore, holding MKR comes with voting rights within Maker's continuous approval voting system.

**DAI** is Ethereum based ERC-20 stable coin. It is a collateral-backed cryptocurrency whose value is stable relative to USD. In 2019, Dai started to support multi collateral.

## MKR price

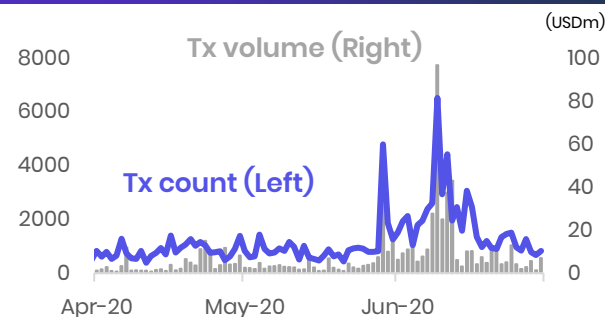


## DAI\* price

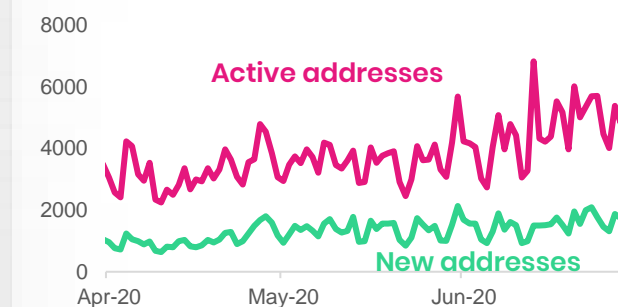
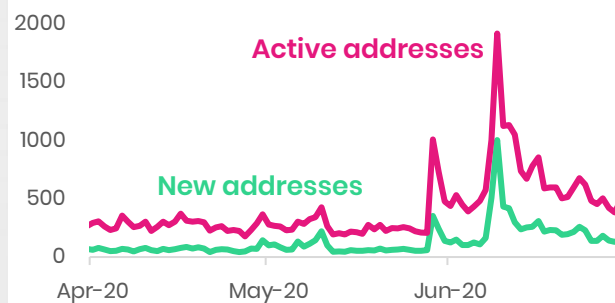
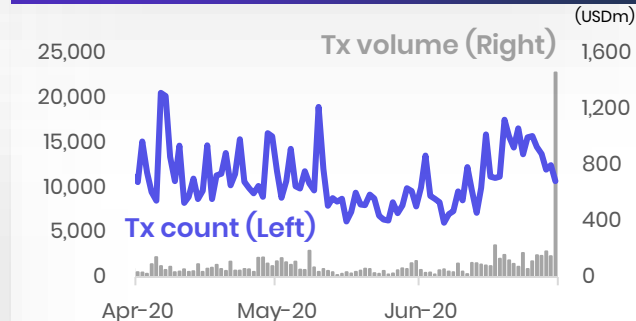


\* Note : Stats from Multi-collateral DAI since 2019-11-22

## MKR on-chain



## DAI\* on-chain





# Synthetix Network Token

3<sup>rd</sup> most popular de-fi token according to defipulse.com in July

## What is 'Synthetix'?

Synthetix is a **decentralised synthetic asset issuance protocol built on Ethereum**. These synthetic assets are collateralized by the Synthetix Network Token (SNX) which when locked in the contract enables the issuance of synthetic assets (Synths).

This pooled collateral model enables users to perform conversions between Synths directly with the smart contract, avoiding the need for counterparties. This mechanism solves the liquidity and slippage issues experienced by DEX's. Synthetix currently supports synthetic fiat currencies, cryptocurrencies (long and short) and commodities.

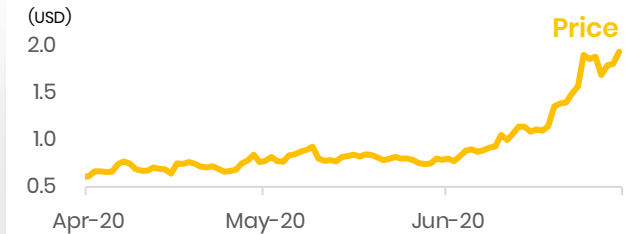
## What is 'SNX'?

All Synths are backed by SNX tokens. Synths are minted when SNX holders stake their SNX as collateral using Mintr, a decentralised application for interacting with the Synthetix contracts.

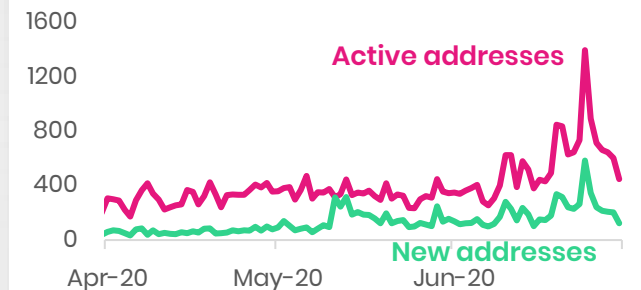
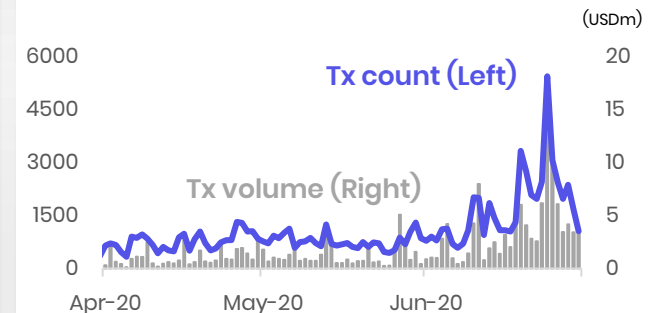
**SNX holders are incentivised to stake their tokens** as they are paid a pro-rata portion of the fees generated through activity on Synthetix.Exchange, based on their contribution to the network. It is the right to participate in the network and capture fees generated from Synth exchanges, from which the value of the SNX token is derived.

Trading on Synthetix.Exchange does not require the trader to hold SNX.

## SNX price



## SNX on-chain





LEND price surged in 2Q20, also showed active on-chain status

### What is 'Aave'?

**Aave is an open source and non-custodial protocol** to earn interest on deposits and borrow assets with a variable or stable interest rate. The protocol is designed for easy integration into the products and services.

**Aave interest bearing tokens (aTokens for short)** are minted upon deposit and burned when redeemed. The aTokens are pegged 1:1 to the value of the underlying asset that is deposited in Aave protocol. aTokens, such as aDai, can be freely stored, transferred, and traded.

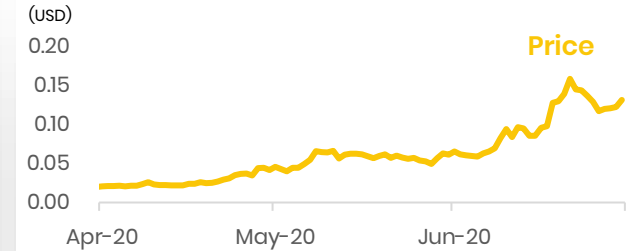
### What is 'LEND'?

**LEND token is the native ERC20 token from Aave and ETHlend platform.**

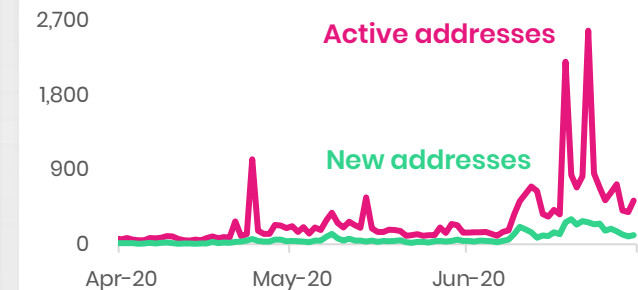
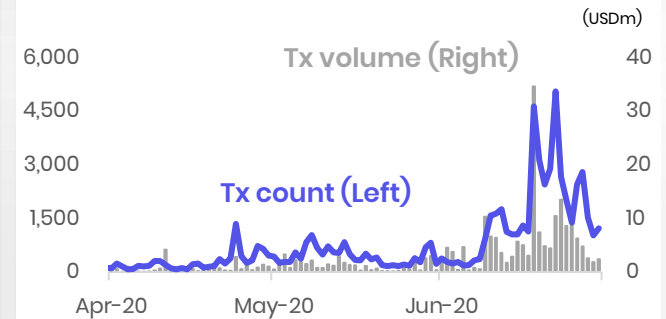
The rights of the protocol are controlled by the LEND token. Initially, Aave Protocol will be launched with a decentralized on-chain governance based on DAOStack framework will evolve to a fully autonomous protocol.

LEND tokens give several advantages in the Aave ecosystem as: Multiple utility along the Aave ecosystem. LEND token would be accepted and used in all current and future Aave products boosting the utility of its native token.

### LEND price



### LEND on-chain



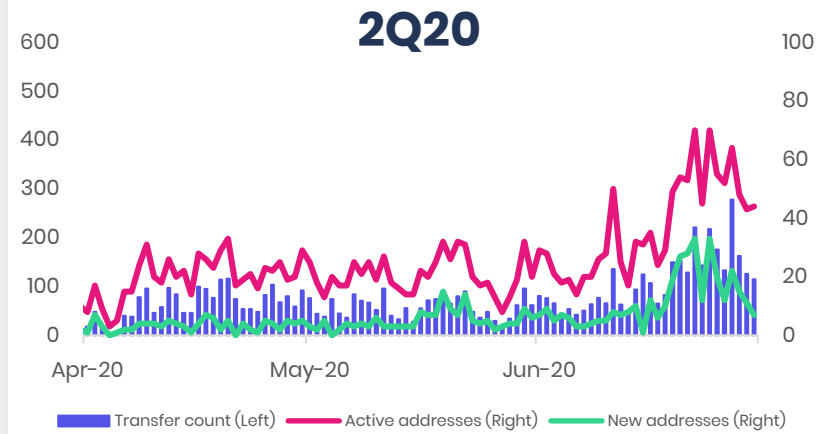
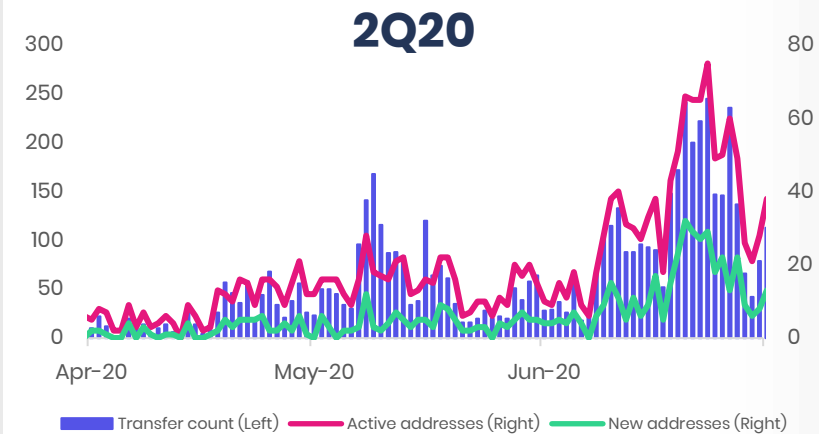
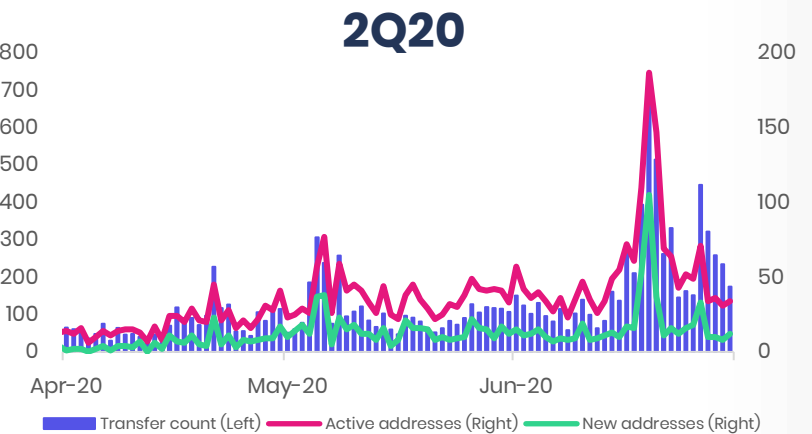
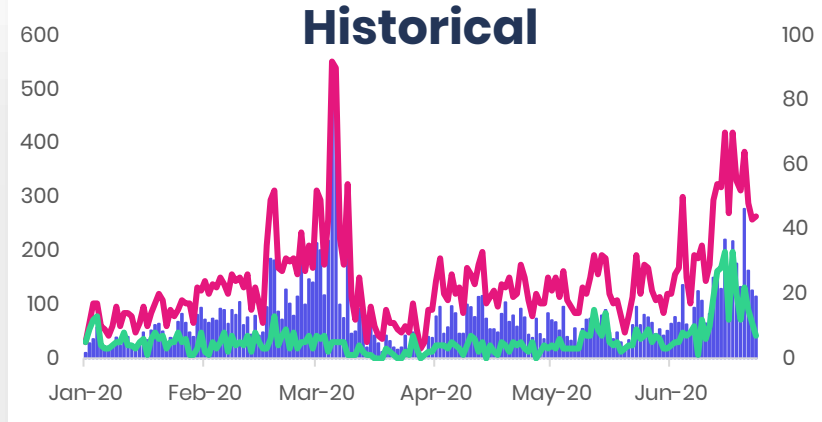
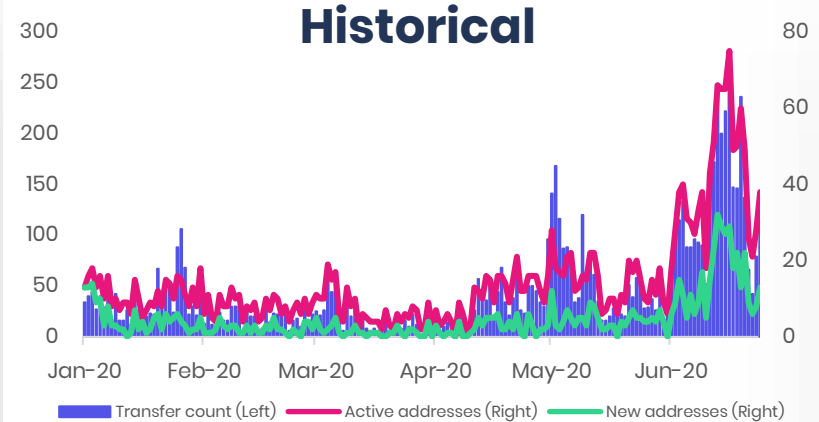
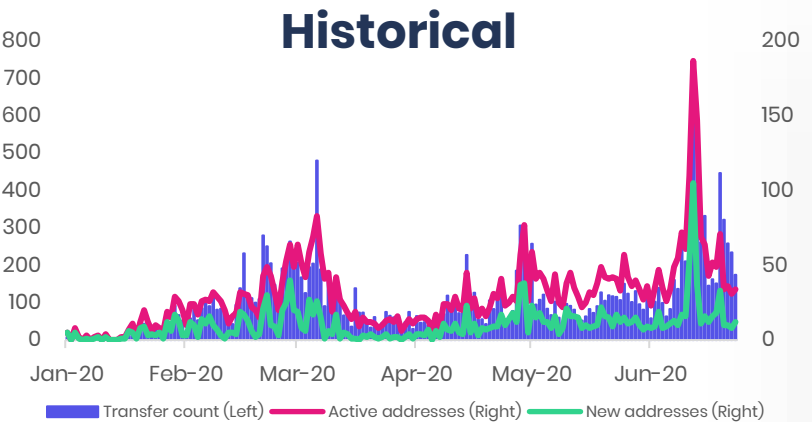


aTokens on-chain status also showed uptrend in 2Q20 due to increase in LEND and de-fi boom

**Aave Interest bearing USDT (aUSDT)**

**Aave Interest bearing LEND (aLEND)**

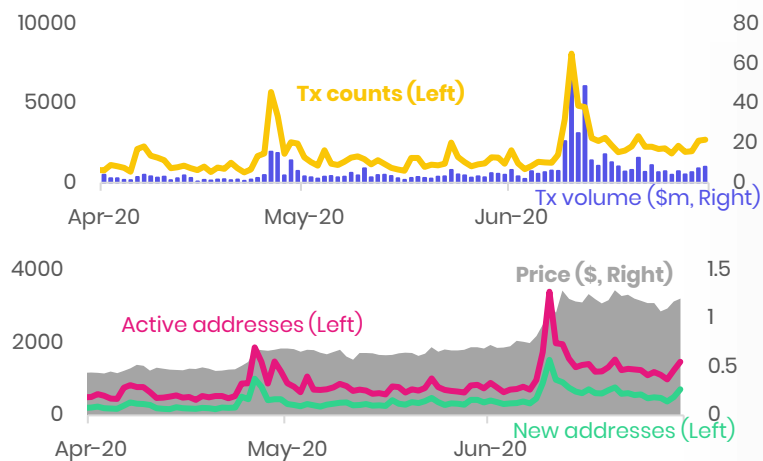
**Aave Interest bearing LINK (aLINK)**



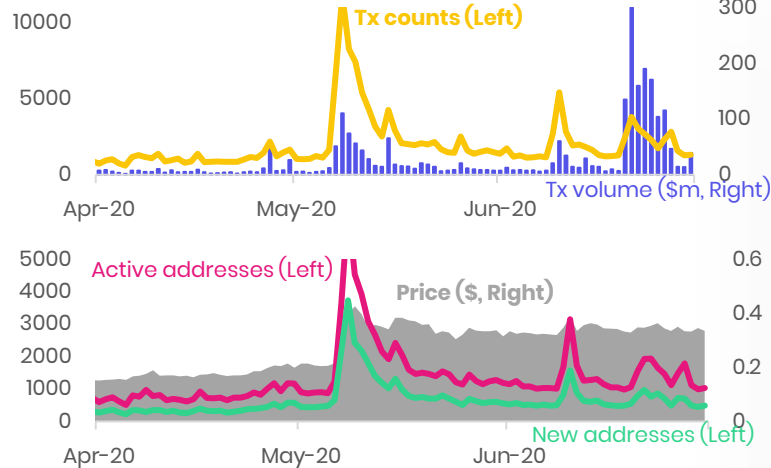


# Dex Tokens Have Shown Relatively Stable Growth and Active On-Chain Status in 2Q20

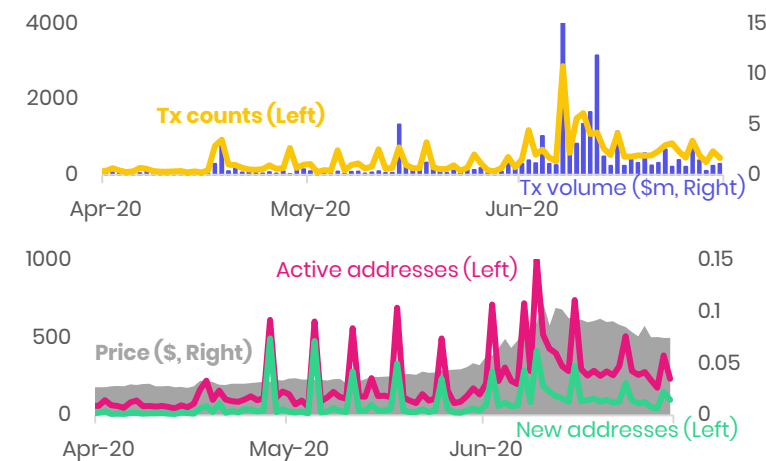
### KNC (Kyber Network)



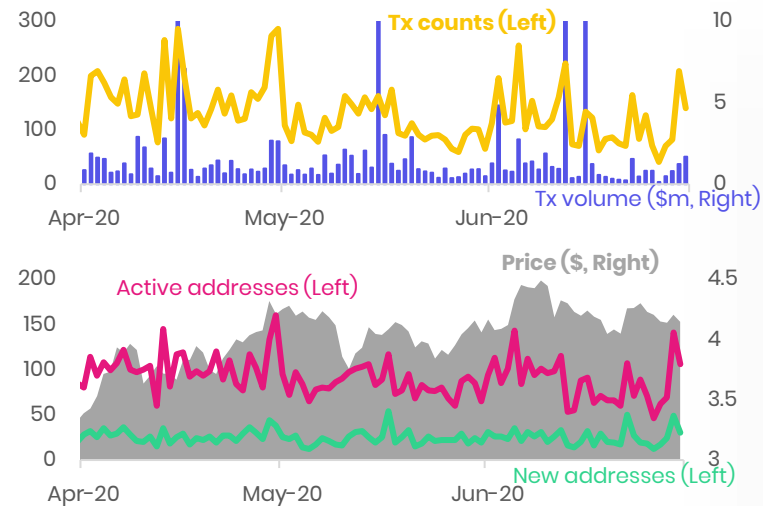
### 0x (ZeroX)



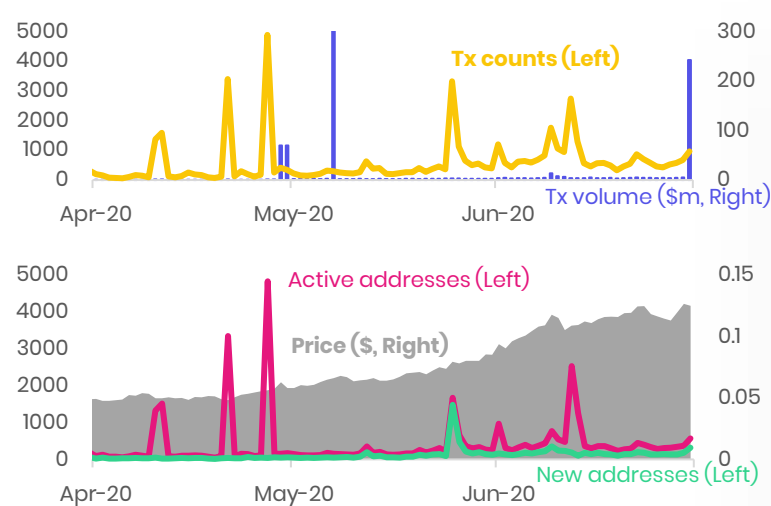
### LRC (Loopring)



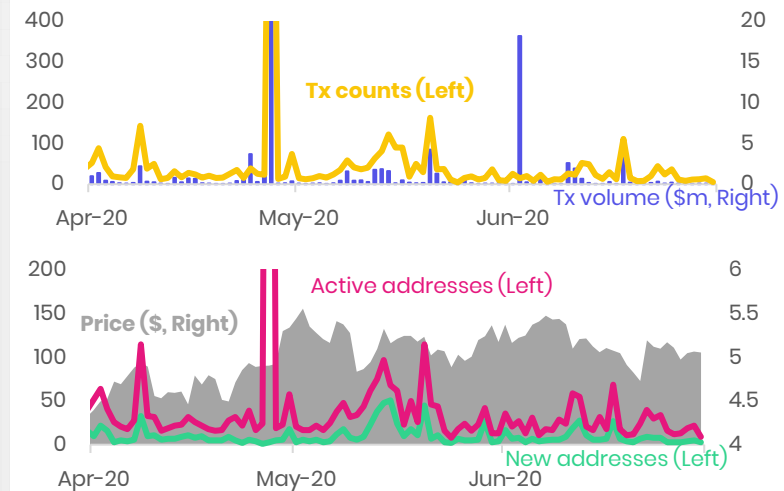
### HT (Huobi)



### CRO (Crypto.com)



### OKB (Okex)



**Thank you**

Xangle