

The Crypto Credit Report

Q2 2019 | Issue 1



Table of Contents

Table of Contents	1
Forward	3
The plan	3
Why we're doing it	3
Here's what we promise	3
What we'd like from you	3
Introduction	5
Industry Snapshot	7
Lifetime	7
This Quarter (Public Lenders)	7
Commentary	8
Collateralized Lending	9
Collateralization	9
Crypto Collateralization	9
Why	10
Who	10
Where	10
Product Types	10
Public vs. Private Platforms	11
Crypto vs. Fiat Assets	11
Crypto Secured Lenders	12
Industry Comparisons	12
Loans Originated (Lifetime)	12
Estimated Annual Interest	13
Maker	14
Value of borrowed DAI per month	14
Numbers of Addresses, Loans, and Liquidations per month	15
Compound	15
Value of Borrowed Crypto assets per Month	15
Numbers of Addresses, Loans, and Liquidations per month	16
Dharma	16
Value of Borrowed Crypto assets per Month	17
Numbers of Addresses, Loans, and Liquidations per month	17

dYdX	17
Value of Borrowed Crypto assets per Month	18
Numbers of Addresses, Loans, and Liquidations per month	18
nüo	18
Numbers of Addresses, Loans, and Liquidations per month	19
EthLend	19
SALT	19
Nexo	19
Unchained Capital	20
Genesis	20
Celsius	20
Cred	20
BlockFi	20
Industry Spotlight	21
Robert's Musings on Libra	22
Acknowledgements	25

Forward

by Paul Murphy, CEO, Graychain

The plan

This quarterly report is all about the crypto credit industry. Every issue will include data as well as our understanding of that data. The numbers are small now, but they're going to be huge. We want to record this progress as accurately as possible.

The first few issues are going to be full of promise¹, but they're going to get better. We're software guys, so shipping early and iterating is just the way we do things.

Besides data, we'll sometimes report opinions and happenings that we think matter. We'll even publish some of our own opinions. Bit of comic relief never hurt anyone.

Why we're doing it

Because we can. We're neutral. We're not competing against anyone whose data we're analyzing or reporting. That doesn't mean we don't have a lot to gain from this work. We do.

We want to make sure the data we produce and sell is useful. The best way to do that is to really understand what everyone in the industry is doing and how our data could help them. Working on this report helps us do that. Sure, it costs us money, but it's not charity.

Here's what we promise

- We will always tell you where and how we got our data. If we ever fail, call us out, and we'll fix it.
- We will always try to independently verify a claim. If we can't, we'll let you know.
- We will never "out" someone's data. By that we mean that if someone gives us data to include in aggregate metrics, we won't ever publish the data separately.
- We will be neutral. Of course, sometimes we'll fail, and for that we apologize in advance.
- We will always transparently correct our mistakes.

What we'd like from you

1. **Feedback.** Talk to us on Telegram at <https://t.me/joinchat/NSeoPxe73PtoopC9vbvmig>. Tell us what's wrong, tell us what you like, and tell us what you hate. Most importantly, tell us what you'd like to see in future issues.

¹ Not be so great.

-
2. **Attribution.** You're welcome to quote anything you find in these reports, as long as you note the source. Seems fair.

Introduction

by Robert Walker Cohen, Analyst, Graychain

Currencies serve two primary purposes:

1. Store of value
2. Medium of value exchange

Cryptocurrencies have proven to be excellent stores of value.

As a medium of exchange, however, most industry observers find them disappointing. We aren't buying and selling much in crypto. We are, however, seeing encouraging signs in a related area that has received little scrutiny from the general public: crypto lending.

Crypto lending is already a \$4.7+ B sector² (loans originated), and is growing quickly.

Markets function most efficiently when liquidity is high, and credit is one of the most important mechanisms for providing liquidity in an economic system. For cryptocurrencies to become a robust medium of value exchange, we need to see (1) the continued expansion of borrowing and lending activity and (2) the use of crypto to buy and sell goods and services.

Many people are working to solve both of these. Our focus is credit.

For the sake of simplicity, I will divide crypto loans into two categories:

1. Collateralized
2. Uncollateralized (i.e., trust-based)

These are two ends of a spectrum. Most loans are guaranteed by a combination of collateral and trust. Today, nearly 100% of crypto lending is collateralized, but this will change.

Some analyses of the crypto lending space include a third type of loan sometimes called a "supply-chain", "receivables", or "invoice" loan. These all refer to the same thing: lending against expected income. We have chosen to include this category of loans under "collateralized loans" since receivables are a form of collateral.

²Some argue that the figure is as high as \$6B, but our analysis, combined with reported figures from private companies that we believe are trustworthy, get us to \$4.7B.

This report will:

1. introduce crypto credit,
2. present collateralized credit data at a high level,
3. dig into the data of four public collateralized credit platforms³,
4. look at some news and commentary from important industry figures, and finally
5. leave you with my opinion of Libra.

This industry is a hotbed of innovation, and it is growing quickly. Preparing this report has been a joy, and I look forward to working on many more. I would like to thank the many people who so generously spent time helping me understand both their platforms and the broader context.

Our data was obtained from three sources:

1. Public blockchains

Maker, Compound, dYdX, EthLend, Dharma, and nüo data was extracted and verified by Graychain's data team. This is collected and analysed with assistance from Dune Analytics.

2. Self-reporting

Several lenders and journalists, many of which are listed in the acknowledgements, kindly contributed private data and market insights to this report.

3. Other public data

Marketing materials, press releases, and other reports.

³ Maker, Compound, dYdX, and nüo.

Industry Snapshot

Lifetime

These metrics cover the lifetime of the industry, i.e., the past twenty-four months. The lenders that have published some or all of their data, or were otherwise taken into account were BlockFi, Celsius, Compound, Cred, Dharma, dYdX, EthLend, Genesis, Maker, Nexo, nūo, SALT, and Unchained Capital. We started with what we had, used approximations for any missing data, and summed the results.

	Total
Unique Addresses	114,000
Loans (total)	244,000
Loans (value)	\$4.7B
Estimated Annual Interest Revenue	\$86M

This Quarter (Public Lenders)

Our quarterly analysis includes data from Compound, Dharma, dYdX, Maker, and nūo. These public lenders represent a small fraction of the greater market. We believe that the growth in these services is comparable to the growth seen in the market at large, and Genesis' quarterly report supports that belief.

	Q1	Q2	Change (%)
New Addresses	3,846	5,726	48.88%
New Loans	5,462	18,562	239.84%
New Loans (value)	\$64,831,909	\$159,294,354	145.70%
Liquidations	1,091	2,354	115.77%

Commentary

DeFi⁴ lending is growing rapidly. During Q2, the supply of Dai increased 20% each month⁵. This is in line with the quarterly growth rate reported above. Twenty-four months ago, the value of crypto loans made was essentially zero. This is a very new industry!

Over the past 18 months, approximately 244,000 loans have been originated. It is important to note that many of these are short term, weeks or even days long. This means that individual loans often don't have much time to generate interest for the lender, and origination happens frequently.

The value of originated Loans is approximately \$4.7B. The highest volume platforms are Celsius and Genesis with 65% of loan origination.

Unique addresses, a proxy for user adoption, is currently estimated at 114,000. We expect that number to grow quickly.

A good proxy for the industry's health is the amount of interest collected. We have estimated this number. We calculated the rate at which many of these loans are liquidated or matured, and applied the average interest rate for each platform.

The data we have suggests that approximately 35% of originated loans are still active. This means that the industry is capitalizing on around 5.1% of its active value, or 1.8% of its originated value. Both of those numbers will grow.

From our quarterly analysis, you can see the number of loans originated grew faster than new addresses and the total origination amount. That means that people are making more small loans, rather than borrowing millions at a time. This suggests adoption (on the public platforms) by more average consumers, rather than institutional borrowers.

Close to 100% of today's loans are fully collateralized⁶.

⁴ Decentralized Finance.

⁵ <https://blog.makerdao.com/dai-in-numbers-momentum-report/>.

⁶ This is due to the fact that uncollateralized lending has not yet been developed, so almost the entire space is collateralized at this stage.

Collateralized Lending

Collateralization

When a loan is collateralized, the borrower pledges an asset to secure the repayment of the loan.

In traditional finance this type of loan is very common. For example, a real-estate property is collateral for a mortgage loan, and a guitar can be collateral for a short-term cash loan given by a pawnbroker. If a home-owner fails to make agreed mortgage payments, the owner of the mortgage can acquire the pledged home to offset the bad debt. If a musician fails to repay the cash loan, the pawnbroker can sell her guitar to recover the money owed.

Crypto Collateralization

In the crypto space, cryptocurrency can act as collateral when borrowing more cryptocurrency.

Yes, that's right, sometimes people want to lock up their crypto assets in order to acquire more. There are three primary reasons for doing this:

1. Leverage
2. Arbitrage
3. Tax deferment

How much crypto needs to be pledged to borrow more crypto? The current industry standard is 150% but can be as low as 110% and as high as 200%.

Why more than 100%? Because the lender doesn't want to lose money! If the collateral suddenly drops in value compared to the borrowed asset (which may be a different cryptocurrency altogether), the borrower needs time to liquidate (sell) the collateral. 50% seems like a big buffer, but anyone paying attention to crypto price swings knows that it's not unreasonable.

In traditional finance, collateralized lending tends to be for large amounts. It's not worth the cost of the paperwork for anything too small. (Pawnbrokers don't do much paperwork, but they're the exception that proves the rule.) In crypto, collateralized lending is largely automated, so loans can be very small.

Why

We noted earlier that there are three primary reasons people borrow against their crypto assets.

The first reason, *leverage*, is an expectation that a cryptocurrency is increasing in value. In that case, using what you own to get more makes perfect sense. This is very common in professional finance circles.

The second, *arbitrage*, is a typical response to immature and volatile markets. If you can borrow money at 2% and earn 3% interest on it, why not? Again, this is very much a professional endeavor. The average person doesn't have the time or skill to notice and exploit these kinds of market inefficiencies, but professionals can make their living doing it!

The third reason is *tax deferral*. Selling a coin for fiat may trigger a tax bill, whilst selling a borrowed coin may not.

Who

Collateralized crypto loans are used by financially-sophisticated people. Leverage and arbitrage are trading strategies. Using a loan to defer a capital gain isn't something most people would think about.

Where

We don't have a lot of hard data yet about where lenders and borrowers live. One of the private lenders we talked to told us that their customers are primarily from North American and Asia, which isn't surprising.

Product Types

The way collateralized crypto loans are structured is fascinating. On the surface it appears that the industry has taken an old form of lending and simply replaced one form of collateral (e.g., real estate) with another, cryptocurrency. This is not the case. So much is new that even coming up with ways to further categorize collateralized loans is proving difficult. Unfortunately, exploring this incredible diversity is beyond the scope of this report.

There are, however, some loan characteristics that matter to us because they affect how we generate and interpret data. These are:

- **Platform type:** public (decentralized) vs. private (centralized)
- **Asset type:** crypto vs. fiat

Let's look at why these matter.

Public vs. Private Platforms

We saw earlier the “collateralized” and “uncollateralized” are two ends of a spectrum, and that most loan types fall between those two extremes. The very same thing is true of “public” vs. “private”, which is *nearly* synonymous with “decentralized” vs. “centralized”. Most platforms are “mostly public” or “mostly private”.

This distinction matters to us because public data is verifiable! Owners of private platforms may or may not allow us the same level of access.

Crypto vs. Fiat Assets

This distinction matters because we are reporting data in USD, and we are converting crypto values in USD at quarter end, not at the time an event took place. This decision is arbitrary and was made for the sake of simplicity.

Note that stablecoins tied to the USD are treated like USD. We may need to revisit that decision if any of them lose their peg.

Crypto Secured Lenders

Industry Comparisons

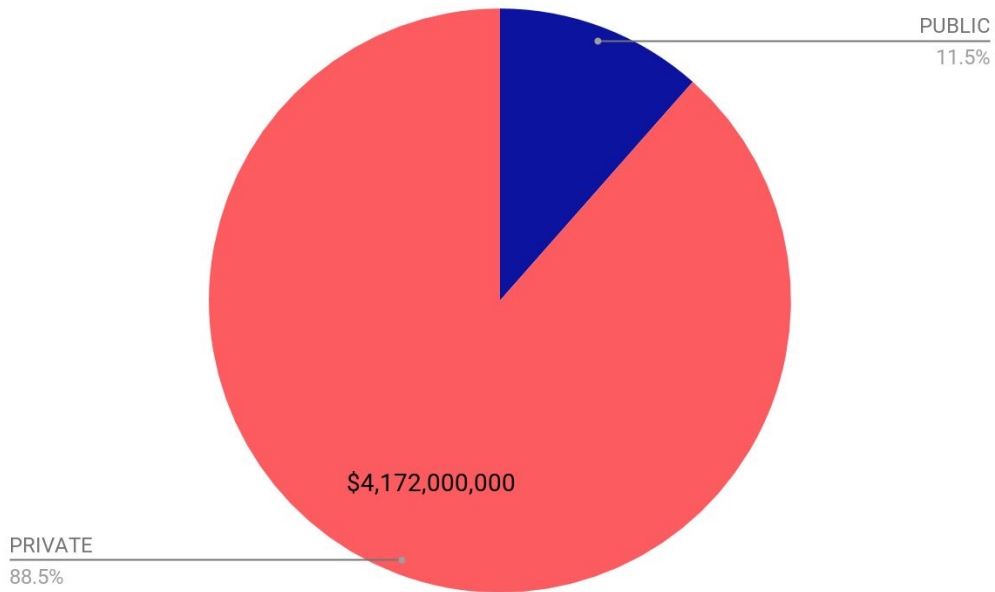
We are able to compute data for public platforms, specifically:

- Maker
- Compound
- dYdX
- nüo

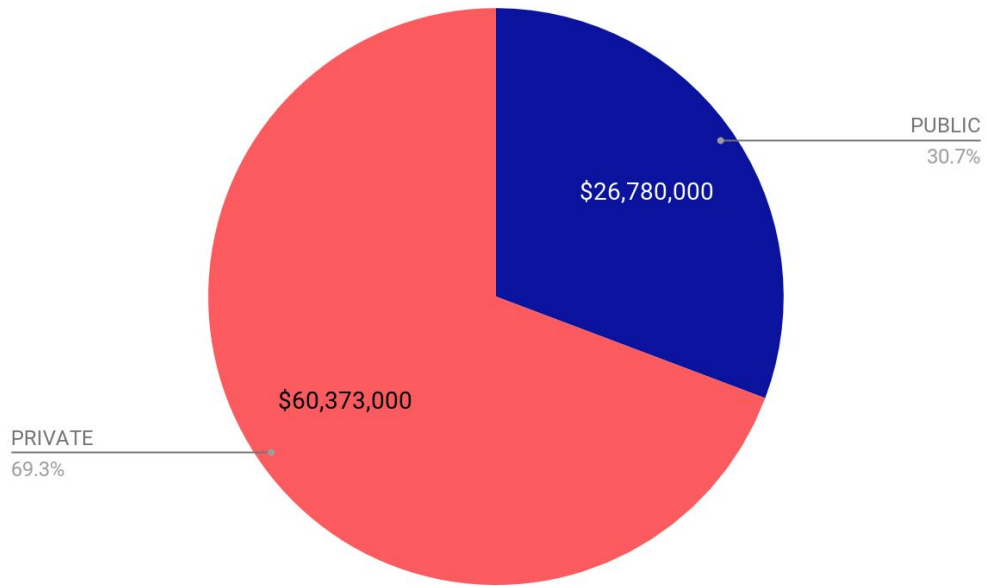
For private lenders we need to rely on self-reported numbers.

In future we hope to present far more complete comparisons of this type.

Loans Originated (Lifetime)

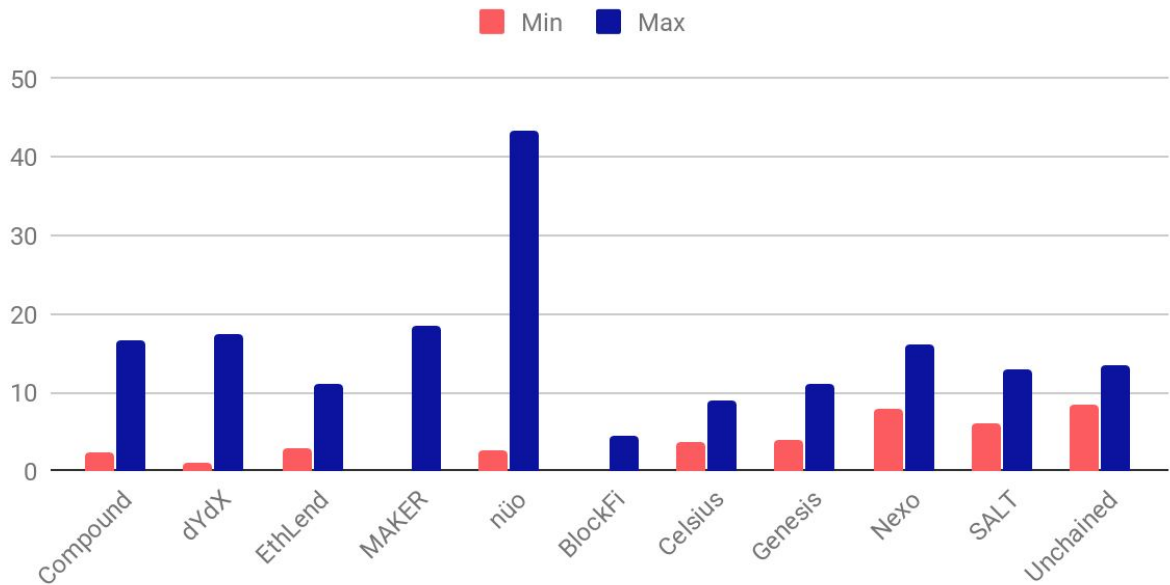


Estimated Annual Interest



Interest Rates

Borrow APR (Min and Max)



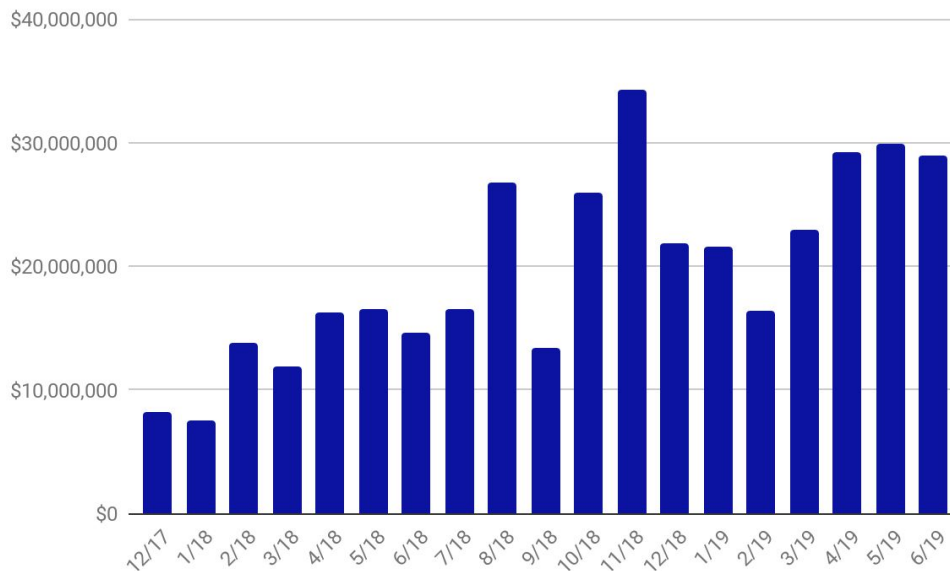
The public lending platforms have higher APRs in general. We consider this something of an “anonymity fee”. This allows the public platforms to have outsized interest returns, despite their small capture of the market’s overall originations.

Below, additional data and information about specific vendors in the space.

Maker⁷

Maker’s loan⁸ portal allows users to borrow the stablecoin DAI by collateralizing ETH. The Loans themselves have an APR known as a stability fee, which is used to keep DAI tied to the US dollar. This system is used to manage supply of all DAI. Consequently, loans exist to support the stablecoin, instead of the other way around, which is the case with most other collateralized lending platforms. For more details read the excellent explainer: “Maker for Dummies: Part 2”⁹.

Value of borrowed DAI per month



⁷ <https://makerdao.com/>

⁸ Note that Maker calls their crypto-secured loans “collateralized debt positions” (CDPs).

⁹ https://medium.com/@greg_10160/maker-for-dummies-part-2-3b364f86bbfd

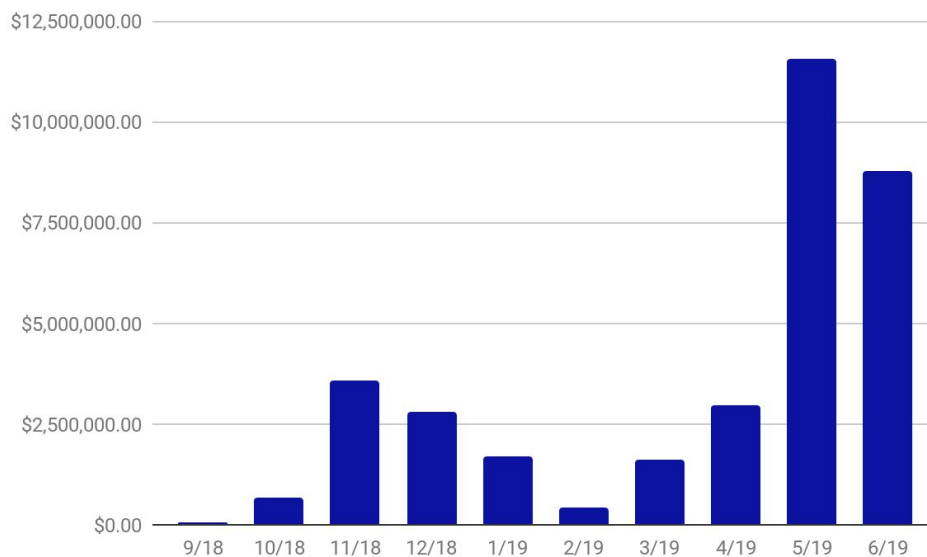
Numbers of Addresses, Loans, and Liquidations per month



Compound¹⁰

Compound is a rapidly-growing, entirely public and anonymous platform that allows users to pool their assets with other lenders on the platform, in order to create a dynamic interest rate based on the pool's supply and demand.

Value of Borrowed Crypto assets per Month



¹⁰ <https://compound.finance/>

Numbers of Addresses, Loans, and Liquidations per month

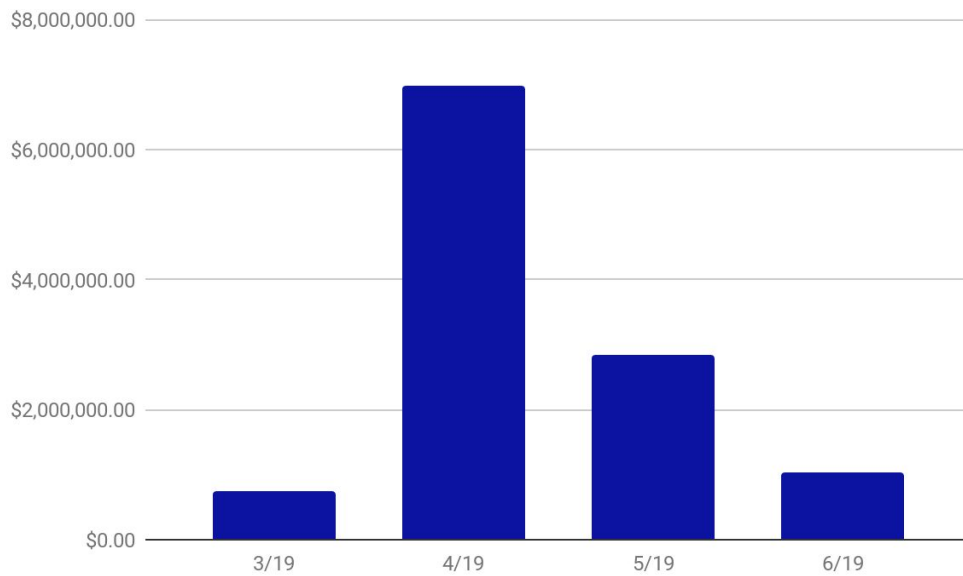


Dharma¹¹

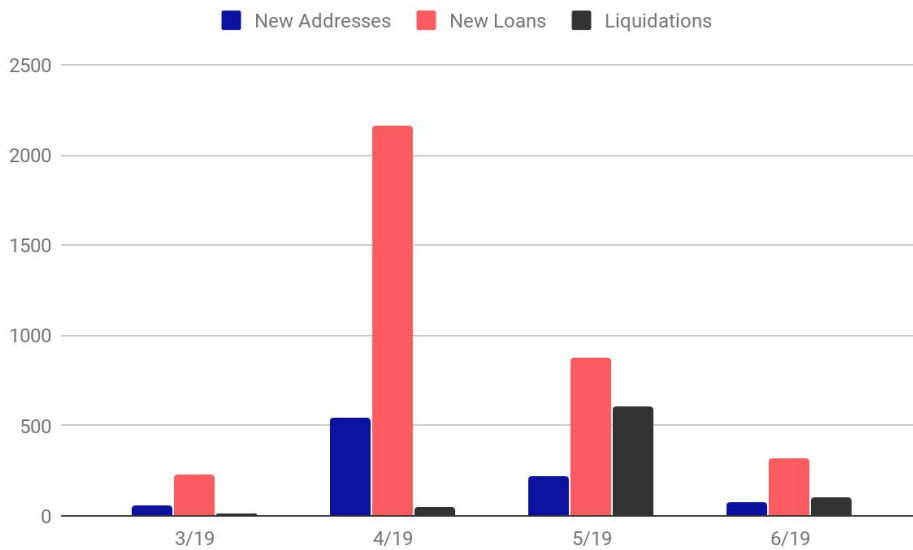
Dharma launched their v1 on ethereum mainnet May 31, 2018. Dharma is a peer to peer lending platform that allows anonymous borrowers to request loans on their own terms, and any lender can originate that loan.

¹¹ <https://www.dharma.io/>

Value of Borrowed Crypto assets per Month



Numbers of Addresses, Loans, and Liquidations per month



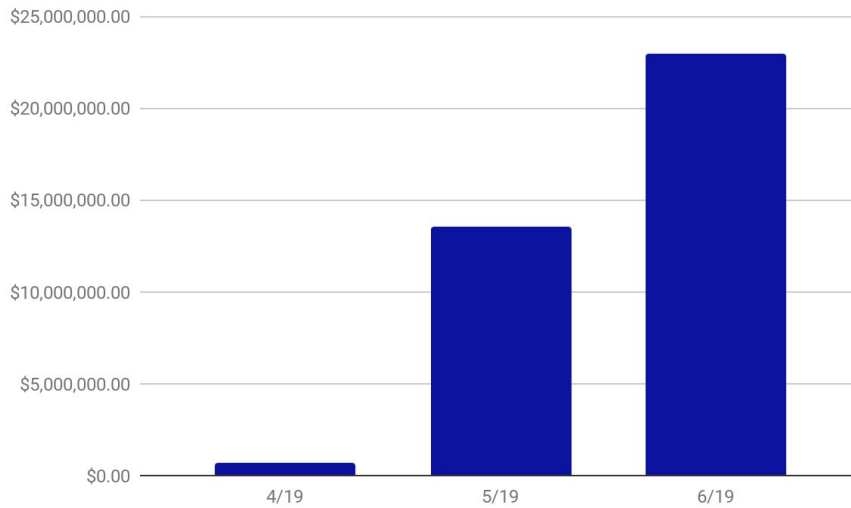
dYdX¹²

dYdX launched on ethereum mainnet May 1, 2019. Like other decentralized lending protocols, dYdX allows users to borrow and lend crypto assets. Additionally, the user interface is

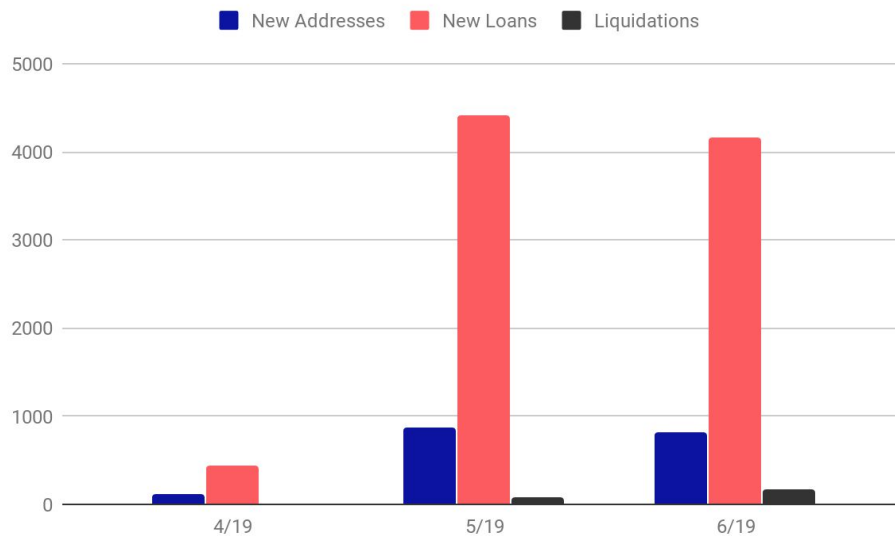
¹² <https://dydx.exchange/>

specifically designed to allow for custom margin trading with crypto assets. dYdX customers remain entirely anonymous.

Value of Borrowed Crypto assets per Month



Numbers of Addresses, Loans, and Liquidations per month

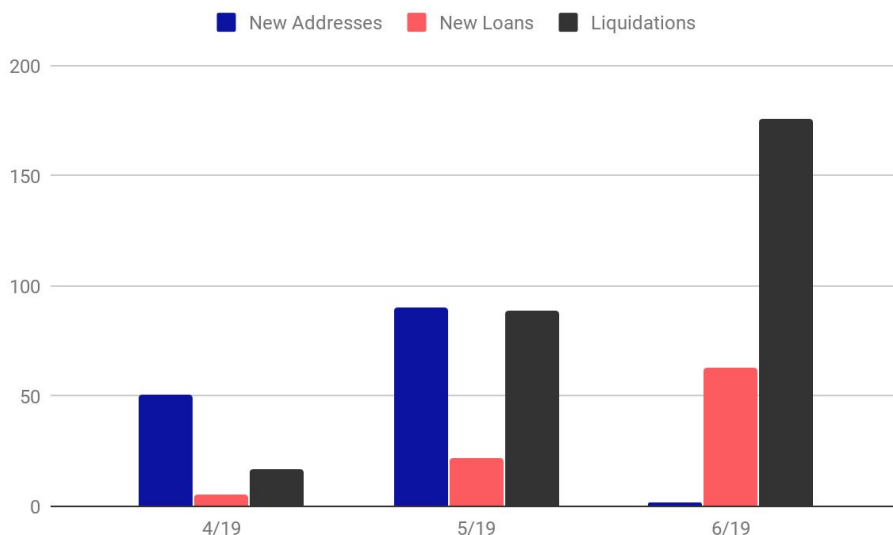


nüo¹³

nüo is brand new-o. They offer a very wide range of supported assets including Maker's MKR. They are currently the largest lending protocol in Asia. Additionally, theirs is the first contract-to-contract (C2C) implementation of margin trading and loans across DeFi. This C2C modal unlocks massive liquidity and makes all transactions near instant.

¹³ <https://www.nuo.network/>

Numbers of Addresses, Loans, and Liquidations per month



EthLend¹⁴

EthLend launched in Dec 2017. EthLend offers a wide variety of Loan products using BTC, ETH (and alts) and fiat. Like many other platforms, EthLend uses their own token (LEND) as a mechanism for borrowers to get more favorable interest rates on their loans by using the LEND token as collateral.

SALT¹⁵

Salt was founded in 2016, and is headquartered in Denver, Colorado. SALT boasts wide licensure for a variety of jurisdictions across the world. Loans originated by SALT can be deposited into a borrower's bank account directly. Participation on the SALT platform includes membership which is accomplished through the purchase of SALT tokens. Tiered membership opens up larger loan amounts, diversified selection of currencies, as well as a line of credit.

Nexo¹⁶

Nexo is unique in the crypto loan industry by giving their customers a credit card to use for everyday purchases. In addition, ownership of Nexo tokens offers users more favorable interest rates. They offer fiat loans backed by a variety of crypto assets.

¹⁴ <https://ethlend.io/>

¹⁵ <https://saltlending.com>

¹⁶ <https://nexo.io>

Unchained Capital¹⁷

Unchained Capital's Collaborative Custody (multi-party, multi-sig cold storage) boasts some of the best security practices in the crypto-lending space and provides on-chain transparency without rehypothecating collateral.

Genesis¹⁸

The biggest player, by total value of loans originated, Genesis capital offers crypto-based financial services to high net-worth individuals and institutions, with a \$75,000 minimum loan amount. It can be assumed that a majority of the activity is conducted by a handful of "crypto whales".

Celsius¹⁹

Celsius earns profits by lending coins to hedge funds, exchanges, and institutional traders, and by issuing asset-backed loans at an average of 9% interest. CEL token determines loyalty level based on the ratio of CEL tokens to other coins in your wallet. The higher the ratio, the more benefits.

Cred²⁰

Cred offers a wide variety of interest rates on several different tokens. Additionally, possession of LBA tokens offers users better interest rates on loans. Cred offers lines of credit that have LTV calculations based on current utilization of credit, instead of on the originated loan amount.

BlockFi²¹

BlockFi offers both crypto interest accounts, as well as crypto backed loan products. They also offer home mortgages and auto loans secured by crypto.

¹⁷ <https://www.unchained-capital.com>

¹⁸ <https://genesiscap.co/>

¹⁹ <https://celsius.network/>

²⁰ <https://www.mycred.io/>

²¹ <https://blockfi.com/>

Industry Spotlight

Coinbase CEO Announces Interest in Bringing Lending and Margin Trading²² (CoinTelegraph)

"In an AMA session on July 19, Armstrong (Coinbase CEO) presented his vision of the company in five years, claiming that he sees Coinbase as not just a crypto trading service provider, but rather a more universal entity driving adoption to crypto.

Armstrong pointed out Coinbase's mission to help grow the global crypto economy by connecting people in the market and expanding crypto community to help people use cryptocurrencies for more than just buying and selling. In this regard, Armstrong cited some recent Coinbase developments, such as incentivized crypto educational program Coinbase Earn, as well as preparations to soon enable crypto lending and margin trading on Coinbase..."

Genesis Lending Surges in Q2²³ (Coindesk)

"Genesis Global Trading's crypto-related lending business remains on a growth tear – especially its loans of U.S. dollars and blockchain substitutes.

According to statistics published by the over-the-counter trading firm Tuesday, Genesis' "cash" lending doubled in the second quarter from the previous quarter to about \$186 million. These loans, denominated in fiat or the dollar-pegged USDC, PAX, TrueUSD or USDT stablecoins, were introduced in last year's fourth quarter and now account for 23.5 percent of the firm's outstanding loans..."

A conversation with Zac Prince, Founder, CEO, BlockFi²⁴ (The Block)

"Zac Prince: The interest account is much bigger. So roughly 10% is what we're seeing right now so out of every hundred people that are on the platform, all hundred of them are interested in earning interest and about 10 of them will borrow money at some point in time..."

²² <https://cointelegraph.com/news/coinbase-ceo-wants-firm-to-move-beyond-trading-in-ne>

²³ <https://www.coindesk.com/genesis-lending-surges-again-in-q2-and-not-just-in-crypto>

²⁴ <https://www.theblockcrypto.com/2019/07/17/zac-prince-interview/>

Robert's Musings on Libra²⁵

If Libra can overcome current regulatory headwinds, it will be positioned to dominate all areas of financial activity in the cryptocurrency space, as many predict. This will extend to borrowing and lending. It is likely that Facebook & Co. will develop numerous applications that facilitate all kinds of liquidity, the grease in the wheels of global finance, including borrowing and lending.

That said, regulatory burdens will certainly be high. In the US & China, the world's two largest markets, government officials at the highest levels have come out swinging against the Libra and other cryptocurrencies more generally. Whether the US government will be able to mobilize quickly enough to prevent the Libra from taking off at all is another matter. Regardless, many other markets are eager to adopt crypto. Per SeekingAlpha²⁶:

"At 20 percent, bitcoin adoption is highest in Turkey, where the lira has fallen 19 percent over the past 12 months. This is followed by Brazil (18 percent adoption), Colombia (18 percent), Argentina (16 percent), and South Africa (16 percent), according to the Statista Global Consumer Survey."

China has pretty successfully banned many cryptocurrencies, yet as their adoption spreads, this will become an increasingly difficult stance for them to take. With many large markets expressing desire for cryptocurrency, one with the resources, stability, and musculature of the Libra will likely be able to establish a powerful beachhead in many markets, and change the global financial system. Libra will exist alongside a panoply of other cryptocurrencies, and I anticipate that alternative forms of lending and borrowing outside of whatever protocols the Libra Association generates will remain relevant.

²⁵ These musings are my own and do not necessarily reflect the opinions of my employer or my mother who thinks I should be doing something more productive than "worrying about funny-money".

²⁶ <https://seekingalpha.com/article/4271152-facebooks-libra-cryptocurrency-future-fintech>

Data Sources

Source	Publisher	Date	URL
Crypto Lending Markets Overview	ICORating	2019-02-19	https://icorating.com/news/2019-2-crypto-lending-markets-overview/
Genesis hits record growth in crypto loans in Q2, reaching \$2.3 billion-mark since launch	The Block	2019-07-23	https://www.theblockcrypto.com/2019/07/23/genesis-hits-record-growth-in-crypto-loans-in-q2-reaching-2-3-billion-mark-since-launch/
Leading Cryptocurrency Platform Completes Over \$630M In Crypto Loans In Six Months	Forbes	2019-02-05	https://www.forbes.com/sites/rachelwolfson/2019/02/05/leading-cryptocurrency-platform-completes-over-630m-in-crypto-loans-in-six-months/#4c6d8ef4526d
defi.review	defi.review	2019-08-03	https://defi.dapp.review
Decentralized Finance (DeFi): Lending Snapshot April 2019	Bloqboard	2019-05-07	https://medium.com/bloqboard/decentralized-finance-defi-lending-snapshot-april-2019-56bb2f0b5adf
Genesis Lends \$425 Million of Crypto in Q1 – and Not Just to Short Sellers	Coindesk	2019-04-25	https://www.coindesk.com/genesis-lends-425-million-of-crypto-in-q1-and-not-just-to-short-sellers
Celsius Tops \$300 Million in Coin Deposits and Completes Over \$2 Billion in Originated Crypto Loans in First Year	BusinessWire	2019-08-01	https://www.businesswire.com/news/home/20190801005758/en/%C2%A0Celsius-Tops-300-Million-Coin-Deposits-Completes
Dai in Numbers: Momentum Report	Maker	2019-08-01	https://blog.makerdao.com/dai-in-numbers-momentum-report/
Genesis Report	Genesis	2019-07-01	https://genesiscap.co/insights/view-q2-insights-2019/
Celsius Website	Celsius	2019-08-03	https://celsius.network/
Makerscan	InstaDApp	2019-08-03	https://makerscan.io/
MKR Tools	mkr.tools	2019-08-03	https://mkr.tools/governance/stabilityfee

EOS Authority Dashboard	EOS Authority	2019-08-03	https://eosauthority.com/rex/statistics
LoanScan Dashboard	LoanScan	2019-08-03	https://loanscan.io
ETHLend Dashboard	ETHLend	2019-08-03	https://ethlend.io/stats
BlockFI Website	Blockfi	2019-08-04	https://blockfi.com/bitcoin-loan-compared/

Acknowledgements

The following contributed to this report.

Contributor	Organization	
Ahmad, Momin	Graychain	Data
Alluri, Vamsi	Maker	Data, insight, and support
Cohen, Robert Walker	Graychain	Management and compilation
Foster, Brendan	Dharma	Insight
Kelly, Joe	Unchained Capital	Insight
Murphy, Paul	Graychain	Insight
Olson, Mats Julian	Dune Analytics	Data and support
Sato, Asahi	Graychain	Design
Todd, Ryan	The Block	Insight
Zumwalde, Neil	Graychain	Data and insight