# DeFi Loan Products w/ RWA Report

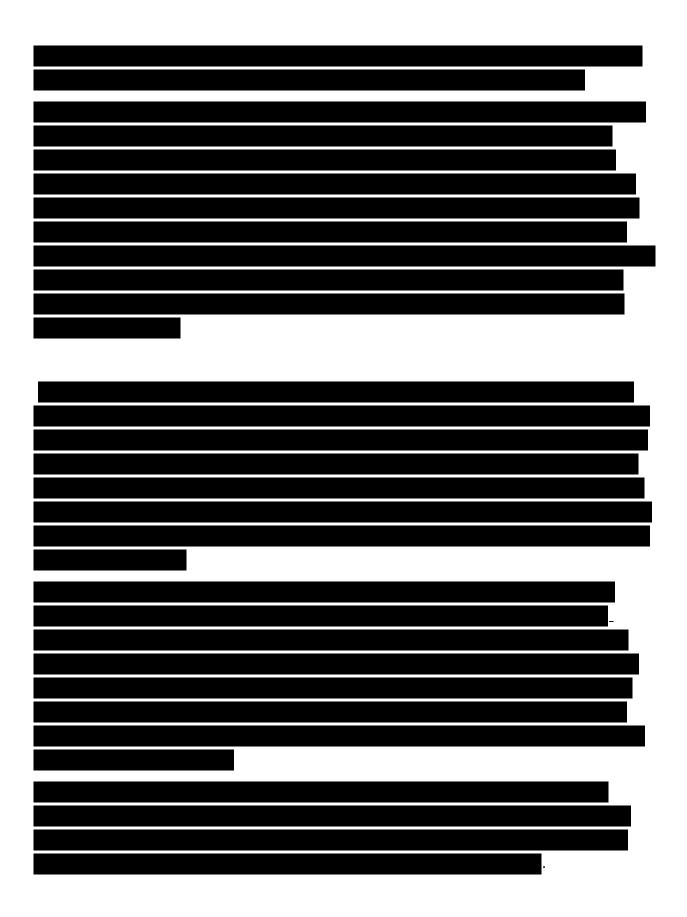
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# Introduction

This sector of DeFi is young but growing very fast. Currently the main focus of the sector is onboarding institutional clients with more mature loan books. The leaders in the space like Goldfinch and Centrifuge seem to have the right tech for it but lack the loan books to bring institutions onboarded.

# Recommendation





### **MakerDAO**

The DAO set up RWA Company, which allows institutional borrowers and loan originators to access Maker vaults. RWA's CEO is Gregory Di Pricso who is the former head of BD at the Maker Foundation. Currently, they are only working with clients that are "experienced loan originators with a diversified balance" or "asset managers seeking leverage or liquidity against diversified portfolios." RWA will serve as the representative service for the DAO when facilitation, signatory, or assurance duties are required. They currently have two clients 6s Capital and Huntingdon Valley Bank.

### **6s Capital**

6s Capital partnered with RWA to be able to pull DAI from Maker and then loan it out to the following companies. Here is the link to the formal agreements. 6s Capital has made 4 loans to Tesla, O'Reilly Auto Parts, Wawa, and Service King. The terms for the last three have no information on the web about their size and interest percentage. Tesla used real estate as collateral for a \$7.8mm loan to finance a new repair and collision center. The loan is expected to increase to \$14.2mm when a second project is completed later this year.

### **Huntingdon Valley Bank (HVB)**

On July 7th the vote adding HVB as a partner passed with an 87% rate. The Pennsylvania-based bank will be able to access liquidity in the form of the stablecoin DAI in exchange for the sale of participation interests in the underlying whole loans from HVB. Here is the link to the formal agreement. HVB is focusing on creating fixed and floating residential and commercial mortgages. Ankura trust is the calculation agent and will ensure the loan participants are eligible for funding. If the participant is eligible then the trust will acquire a maximum 50% interest in the underlying loan by executing a certificate of participation in exchange for cash. This is the first large-scale partnership between a regulated US bank and DeFi. The pool is currently in construction and should be monitored once it goes live. The initial debt ceiling is \$100mm with a 12 month goal

of \$1b. The yield benchmarks are 30-Day Average SOFR (currently 0.083%) & "Like-Term" US Treasury (e.g. 5-year UST currently 2.310%).

### Other RWA information

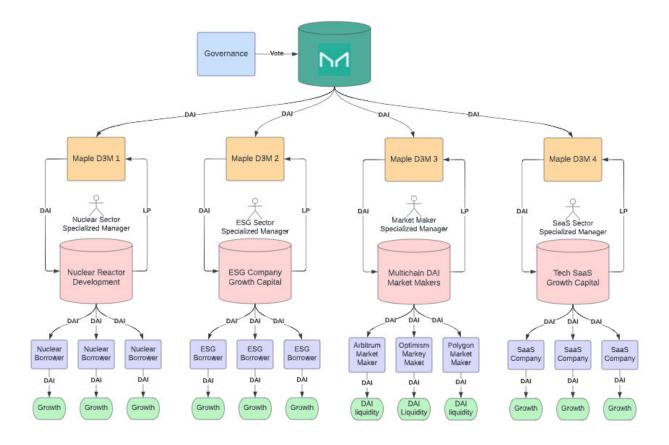
- Recently the DAO voted to invest \$500mm worth of DAI in US Treasuries and corporate bonds. This vote ended with a 57.67% decision to split the investment by 80% into treasuries and 20% into corporate bonds. The specifications of the assets are 80% composition of US Short-Term Treasuries (40% 0-1 year US Treasury ishares ETF & 60% 1-3 year US Treasury ishares ETF from BlackRock) and 20% IG Corporate Bond (split of US Treasury Index and Active global mandate for 0-5y investment grade, clean money aligned, corporate bonds from Baillie Gifford).
- The other notable proposal that was passed was to formally approve the process for methodology and review for structured finance transactions. The official definition is here: "MIP67 intends to (1) formally approve the Methodology for Review of MIP6 Structured Finance Transactions 17 published by the Real-World Finance Core Unit, and (2) introduce a high-level process that each MIP6-compliant application should undergo in order to receive, eventually, a positive endorsement from the relevant real-world CU stakeholder groups. E.g. RWF-001, SES-incubated Lending Oversight team, future CUs."
- The DAO also passed a vote changing the max acquisition price from \$1.5mm to \$2.85mm for Peoples Company Series 1 and included Arkansas as a possible state.
- The DAO has also prioritized the onboarding of the following lenders:
  - technology metals market
  - real estate assets DROP by REIF
  - Cauris Global Fintech Fund
  - Nebula Capital Partners
  - RWA-120dB
  - Untangled Finance

Overall Maker themselves is not doing anything specific with RWA assets, but many entities are using Maker vaults to onboard RWA onto their platforms. Currently the only investment approach would be to buy the maker governance token, which I would pass on since there are higher beta plays by buying one of the other protocol's token and the uncertainty of how lending protocols will use Aave's GHO token and FRAX. Many of the following protocols use DAI as their stable coin and is the lifeblood of the RWA sector, so it would be important to understand the protocol and monitor the health of it.

# **Maple**

Maple allows reputable and profitable crypto-institutions undercollateralized loans on Maple. They have lending pools on Ethereum and Solana with \$1.5b in loans issued and \$725mm deposited in the protocol. Maple received a 91% from DeFiSafety based on Maple's clear and replicable development process.

On April 12th Maker and Maple partnered together which will allow Maker to scale DAI in the long term through Maple. This will be powered by the DAI Direct Deposit Module (D3M) to mint DAI into sector-specific managed liquidity pools in the Maple protocol. Leveraging the D3M pools they will be able to supply DAI to loans backed with value that is represented off-chain, which allows Maker to tap into value outside the Ethereum ecosystem. The issued DAI will be backed by LP tokens issued inside of Maple. The partnership with Maker allows experienced credit experts to underwrite and allocate large amounts of growth capital to creditworthy institutional borrowers. The structure will look like the following:



Maple will now be able to the following on behalf of Maker"

- Borrower onboarding
- Borrower relationship management
- Legal infrastructure management, Master Loan Agreements, etc.
- Financial, operational and risk due diligence on borrowers
- Credit risk analysis of borrowers
- Underwriting and negotiation of loan terms
- Managing liquidity and outstanding loans
- Managing defaults and all corresponding legal proceedings necessary to recover capital

Maple hopes to allow investments with DAI to the following industries:

- Sustainable energy funding (solar, wind, etc.)
- Nuclear reactor research and development

- DAI multi chain liquidity
- Advancing emerging economies
- Purchasing low-risk treasuries/bonds
- Healthcare advancement
- Growth capital for tech companies
- Neurological advancement research
- Global supply chain optimization
- etc...

This pool is not live yet and should be followed to see progress.

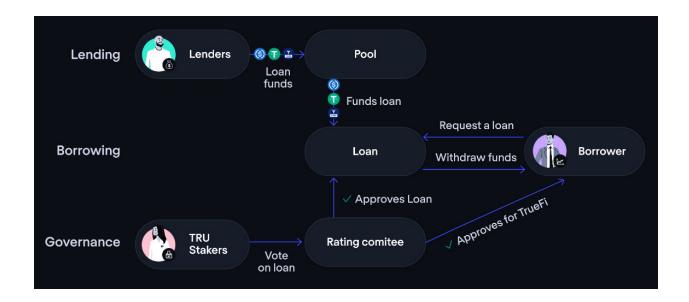
Maple is also looking into distressed loan book sales and undercollateralized loans. Currently about 6 months away from tokenized and tradable tranching to get to mid teen APY on junior tranches. We were told that we can give ideas and suggestions to them to create these type of products that can have basic parameters for a structured product type product.

Currently there are no RWA investment opportunities other than buying the Maple token as a larger play on their roadmap. Due to other protocols being farther ahead in the space (Centrifuge and Goldfinch) I would not buy this token as a RWA bet until we see how their updates are implemented. Due to their plans being similar to what Goldfinch and Centrifuge are already doing and if we cannot convince them to create a more complex product this protocol is not worth an investment.

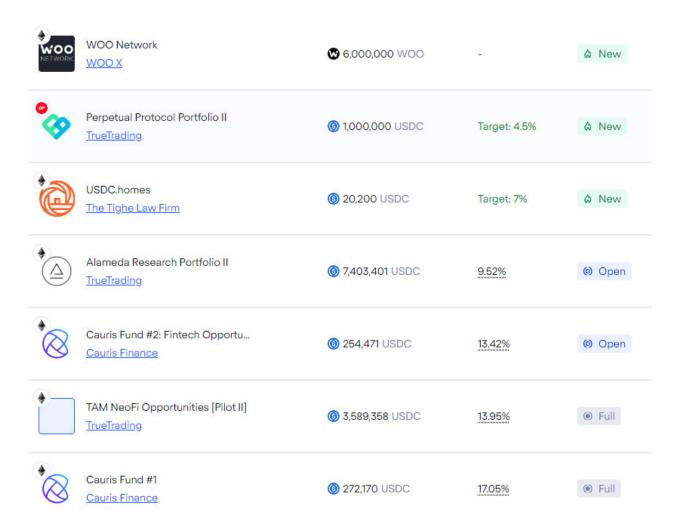
### TrueFi

TrueFi brings collateral-free lending on-chain, maximizing capital efficiency for borrowers and earning rate for lenders. This is powered through the TRU governance token. The protocol has a TVL of \$325mm, \$1.67b in loan originations, and \$291mm in current loans outstanding.

Diagram of TrueFi's Mechanics:



There are two different ways to lend through their app. The first way is lend to portfolios managed by the DAO, where borrowers and loans are reviewed and by TRU stakers. They have four pools you can lend to by depositing BUSD, USDC, USDT, or their in house stablecoin TUSD. The earnings for the pools are 8.4%, 7.8%, 8.4%, and 7.8% respectively. You also earn 3.5%, 4.1%, 2.1%, and 4% in TRU rewards. The second way is to lend to independently-managed portfolios and single borrower pools. There are currently 7 open pools with 4 of them to traditional companies and 3 to crypto specific companies. Here is a snapshot of the current pools open:



#### **USDC.homes**

<u>USDC.homes</u> is pre-approving mortages with nothing but crypto. They are currently only operating in Texas and appeal to outside US investors looking to buy US real estate. Metrics for their mortgage:



There is also potential to be a lender for <u>USDC.homes</u> with multiple areas to lend in:

- Personal Loans
- Mortgages
- BNPL for bluechip NFTs
- B2B and DAO debt
- gaming guilds

The pool has a max size of 5mm USDC and the maturity date is June 2nd, 2023.

No investment opportunity as of yet, but reaching out to gain further information about how this process is working.

#### Cauris

Cauris has two pools and is a investment firm that provides credit to fintech companies in emerging markets. They take a loan of USDC from TrueFi convert to fiat and invest in traditional companies. Their geographically focusing in India, Africa, and Mexico. These are the industries they have invested in :

- Consumer loans and financing
- Motorcycle financing
- SME financing
- Trade finance
- BNPL

The first pool was for 260k USDC and the maturity date is August 18th, 2022. The second pool has a max size of 5mm USDC and the maturity date is June 5th, 2023.

#### **TAM Neofi Opportunites**

TrueTrading Asset Management is an alternative credit portfolio generating high yield, uncorrelated risk adjusted returns for investors seeking short duration exposure to the B2B Fintech space. The maturity date for the pool is August 19th, 2022 and the pool was for 3.51mm USDC.

The recommendation here is similar to Maple. TrueFi is farther along than Maple is for RWA lending, but once again it is not as far as Centrifuge and Goldfinch. Only opportunity I see is if we create a basket of tokens to bet on the overall sector and don't

think any of the lending opportunities are mature of enough. If we decide on a basket of tokens we should set up a meeting/onboard with TrueFi to diligence their loans more, which can only be done by onboarding.

# Centrifuge

Centrifuge is similar to TrueFi in that it has multiple lending pools to loan out to various companies. Their missions is to connect people to borrow and lend money transparently and cost-effectively. Free of rent-seeking intermediaries and the inefficiencies of traditional finance. Centrifuge started as its own blockchain, which is powered by CFG. CFG provides security to the network because of the PoS consensus mechanism. Centrifuge is built on Substrate which allows it to connect to Polkadot and Ethereum. Investors in Centrifuge's pools also earn daily rewards in CFG. The reward rate is an annualized representation of these rewards based on the current CFG token price. Rewards are independent from the pool's issuer and not guaranteed. They have an inhouse two token mechanism DROP and TIN to represent senior/junior tranches where the senior tranche has a fixed rate and the junior tranche has a variable rate. Currently they have 12 open pools with various interest rates. They are all traditional companies borrowing from Centrifuge that invest in emerging market fintech companies. Although some of the Junior APY's are appealing, even Centrifuge themselves have admitted that none of these pools are mature enough for an investment from GoldenTree.

Their new primary focus is onboarding institutions with mature loan books with the help of Blocktower. First step in onboarding will be to provide more color to the loans themselves. In the medium term you will be able to examine and understand the loans better by having real time cash flow analysis into the NFTs which represent each individual loan on chain. Centrifuge has partnered with Maker for \$50mm in credit, but with Blocktower that will increase to \$200mm. In the works of building out the tech to allow protocol fees to flow to token holders, and then thinking of longer term value accrual for the token. Centrifuge is also very involved with Aave about their GHO token and plan to incorporate the token once it becomes live.

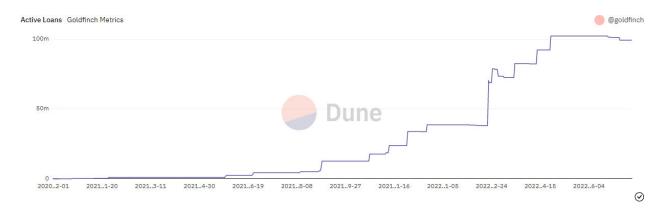
I believe the tech is there to produce a strong product, they just don't have the right partners to grow to the institution side of things. As of right now I would not recommend buying the token or investing in one of their pools. I would suggest we onboard with their platform and learn more about what they are doing behind the scenes. We would be a great partner to bring mature loan books to the conversation. Once that is done,

we can decide if we want to be a borrower if we are very convicted, buy the token if we are only somewhat convicted, or pass if they don't truly have the tech they say they have.

### Goldfinch

Goldfinch is very similar to Centrifuge. The only difference is they have a broad senior tranche instead The TVL is \$101mm. The GFI token is used for governance votes, auditor staking, auditor vote rewards, staking on backers, and early backer rewards.

### Active Loans (\$99mm):



### Protocol Revenue last 30d (\$127k):



Currently there are two different type of investments you can make on their platform. The first type is their version of the senior tranche which is one pool with fixed rates that is distributed across the borrower pools. Currently the pool earns 7.81% on USDC and another 9.51% on GFI you earn from providing liquidity to the pool. When you invest your USDC into this pool you get an equal amount of FIDU which is their stablecoin that has a pool on curve. Currently it is trading at \$1.02.

The second type of investment is currently only one junior tranche pool open with 11 pools full and 11 pool repaid. The one pool open is for Cauris which is using TrueFi and Centrifuge as well.

Metrics for pool:

Est USDC Return APY	17%	
Est GFI Return APY	11.66%	
Current Size	\$6.1mm	
Pool Cap	\$10mm	
Interest Rate	10%	
Payment frequency	30 days	
Payment term	3 years	
Default interest rate	0%	
Opening Date	3-May-22	

\*Most of the full pools have similar returns for USDC and GFI with the range being 27%-31% when they are added together

On July 15th there was a proposal posted on their governance forum suggesting the idea of a secondary marketplace for borrower pool positions. No vote on snapshot has been created at time of writing.

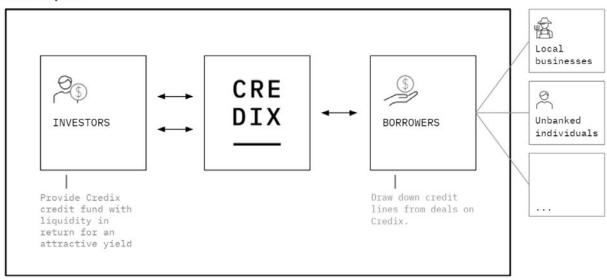
The recommendation here would be the same as Centrifuge, except reach out to see what their product roadmap is as well. If they plan to stay competitive with Centrifuge I would expect them to have a similar plan. This is the newest of the first five protocols but, has already a larger TVL than Centrifuge. They are farther than their competitors when it comes to product offering and could potentially have the same problem as Centrifuge: good tech, bad loan offerings. Would be worthwhile to see what is behind the loans and learn what they are doing in the medium/long term.

### **Credix**

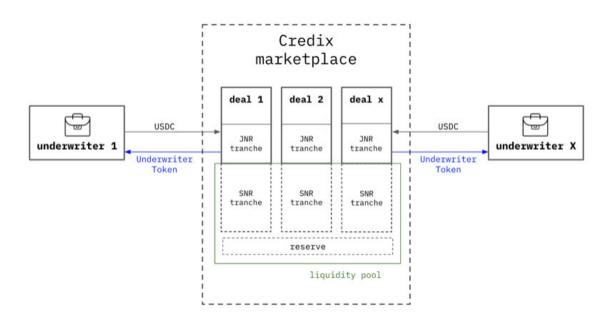
Credix provides emerging markets with access to capital they were previously unable to tap through traditional financing means. They connect institutional investors to pools of borrowers, enabling them to access all new types of credit. For investors, the service allows them to jump the many hurdles of investing in emerging markets in addition to providing them with high yield real-world asset-backed loans. For borrowers, Credix provides them the ability to apply for and receive a loan in a matter of weeks not months as well as saving on the steep costs associated with moving money across international

borders. Borrowers can save up to 300 bps in service costs alone in comparison to traditional credit lines. Credix provides these loans by working with local FinTech companies as an intermediary to send the USDC they receive from investors and then convert that into the local fiat currency.

#### Credix marketplace



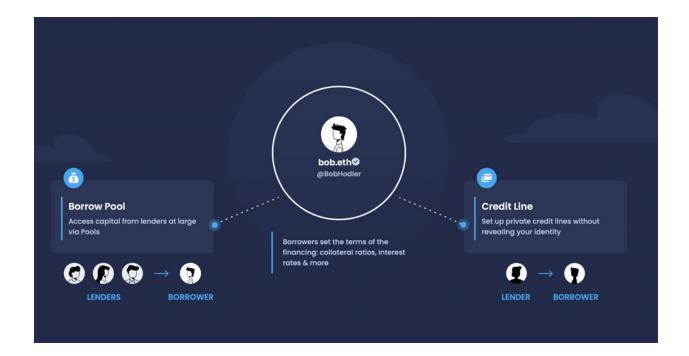
Furthermore, Credix splits its loans into a junior and senior tranche. The underwriters are made up of institutional investors and high-net-worth individuals. In return for taking on the higher risk associated with the junior tranche of the loan, they are allowed to fund loans on a case-by-case basis. Whereas, the senior tranche is funded by the liquidity pool whose members do not have a say in the loans that are given out.



Without any ability to publicly audit their loans, Credix looks to be a pass. Investing in emerging markets in it of its self is a risky investment, and requires great amounts of diligence in order to gain conviction that you will ever see the money you loan out again. However, Credix relies on third party local FinTech companies to due the underwriting and send out lines of credit, with Credix simply providing these companies liquidity. This adds another layer of risk on top, given that Credix does not have control over the individual loans. Furthermore, their business model relied on them finding trustworthy local companies to lend out their money that will not just run off with the liquidity. While Credix claims that their loans are backed by real world assets, actually seizing these real world assets from small companies in distant emerging markets that default on their loans may be extremely difficult. Thus, I believe that the compounded risk of these loans is just too high for Credix to succeed especially in the bear market that we are now in.

### **Sublime**

Sublime is attempting to leverage individuals' online reputations in order to allow borrowers access to capital-efficient loans. The company creates a bridge between your wallet addresses and your digital identities such s Twitter, Github, Discord, etc.



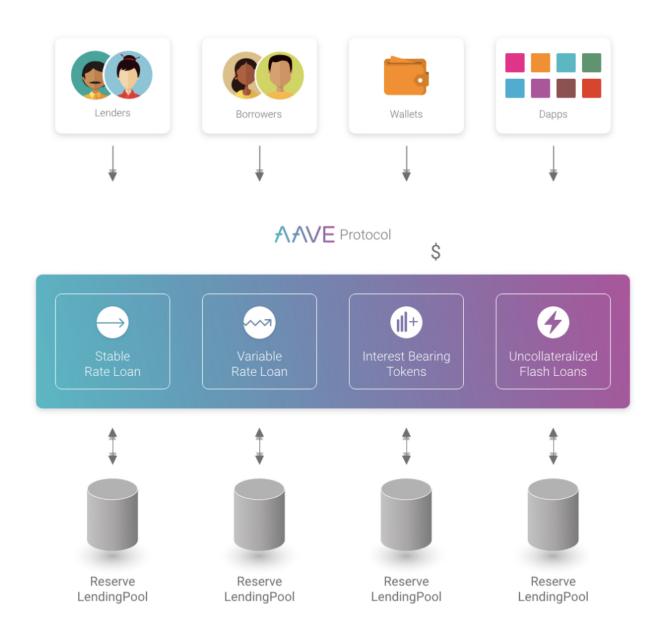
This bridge allows lenders to provide credit to people within their "web of trust," providing an alternative to the traditional credit score. These decentralized identities aid in investors confidence in the various products that Sublime offers, including funding DAOs and investing in Asset Managers. Many retail traders will often attempt to track and follow the trades of popular crypto personalities. Sublime greatly improves this process, allowing 'crypto celebrities' to even become asset managers.

Sublime is still in development and has yet to release a public roadmap. In addition both the founder and company's twitters have been inactive for the past three months, which coincides with the recent cryptocurrency drawdown.

Given that Sublime has been radio silent for the past four months, with no tweets from the company twitter or any of their employees and no responses from the team on their admittedly very small discord, it is unclear if Sublime has been able to weather the crypto winter. However, assuming that the company is still active, they have still not released enough information about how their social financing will work. They have only outlined their general goals and promises without going into any real detail. Without this additional clarity, I do not have enough conviction to recommend anything other than a pass.

### **Aave**

The Aave Protocol was one of the first to provide pool-based lending that decreases the barrier to entry for users in the DeFi lending space. Instead of a P2P direct lending strategy, Pool based lending allows lenders to receive a yield on their money without having to directly review every loan.



Aave provides a variety of different lending pools across all major blockchains including:

- Arbitrum
- Avalanche
- Fantom
- Harmony
- Optimism
- Polygon
- Ethereum

#### **GHO**

Aave in early July announced that it is building a new overcollateralized stablecoin, GHO, which will be pegged to USD. GHO will be launched on the Aave protocol, with users able to mint GHO against their supplied collaterals. This stablecoin is aimed at rivaling MakerDAO's Dai by providing attractive APY for stablecoin lenders. Users will be able to mint GHO using their supplied collateral on the Aave Platform.

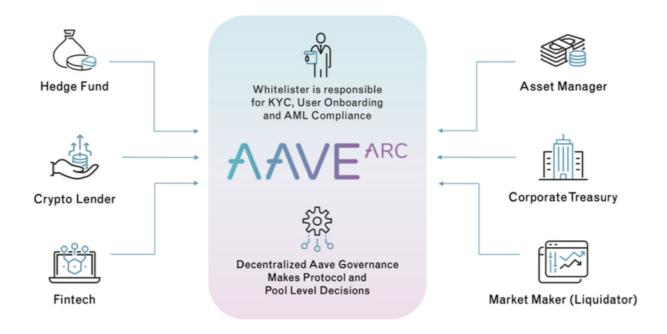
#### **Aave Arc**

In early 2022, Aave unveiled Aave Arc in conjunction with Fireblocks in order to create a permissioned DeFi product that is accessible to accredited institutions. They tout a 5% APY for USDC as well as high yields on USDC, BTC, and ETH. Aave Arc creates an isolated Aave market which only allows borrowing and lending between whitlisted members on the Arc platform. The platform will follow AML/CFT standards as well as other regulatory and compliance standards in order to make the platform accessible to accredited institutions. While Arc is controlled by the aave token-holders, whitelisters on Arc have a "guardian" role, allowing them to veto any proposal relating to Arc if they deem it necessary. In addition, Aave has since added Securitize as a whitelisted platform and expects many more to join. Aave Arc has already whitelisted over 30 financial institutions allowing them to participate in it. These include:

- Anubi Digital
- Galaxy Digital
- Canvas Digital

- Celsius (Bankrupt)
- CoinShares
- GSR
- WinterMute

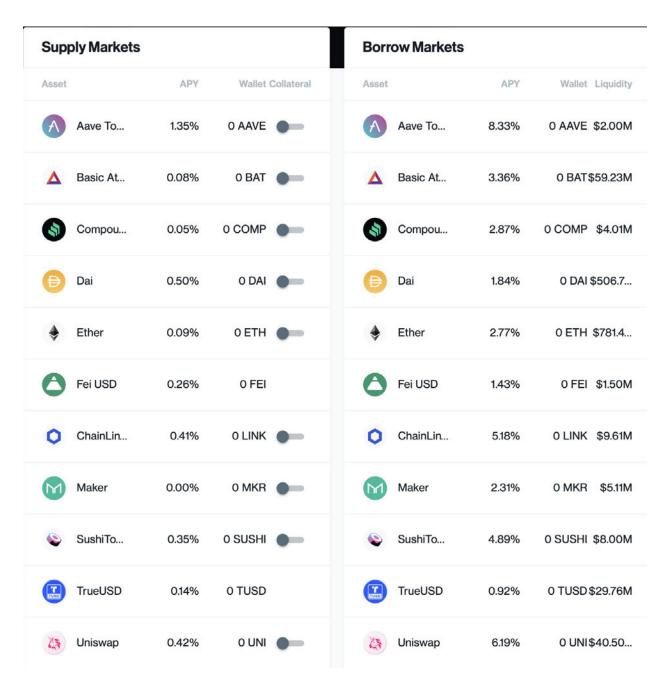
Absent from the list of 30 disclosed whitelisted institutions are any banks, with all participants being well known in the crypto sector. Fireblocks stated that it has received interest from some traditional banks about joining Arc but has yet to make any announcements. Given the current bear market, it is unlikely that a bank will join the platform in the near future.



With Aave Arc, Aave has positioned itself to capitalize on the increased widespread institutional adoption of crypto that should return and only strengthen as the market rallies. Furthermore, with introducing of their own over-collateralized stablecoin GHO, they seem poised to increase their marketshare in the DeFi sector. Thus, I believe Aave is a good long term play as it positions itself to become an easy and relatively low risk way for institutions to bring real world assets into DeFi.

# Compound

Compound was founded in 2018 as one of the first DeFi loan products with algorithmically set interest rates, which allows users to frictionlessly borrow and invest their Ethereum assets. Compound compiles many popular Ethereum interest rate markets, allowing lenders to easily compare the APY of these various products and invest in the ones they find most attractive.



Compound has accumulated over three billion dollars in interest accumulating assets since its inception across the 18 markets the protocol supports. Given that the APY of these markets are variable, a major downturn in digital asset markets can cause APY to plummet. Once touting 25% APY, Aave now offers 1.35%. However, for large long-term fundamental holders, there is still no reason to not stake your assets and earn yield on your money.

Furthermore, Compound integrates with multiple community-built protocols specializing in aiding institutions in staking their assets. This includes:

- Coinbase Custody
- Anchorage
- Fireblocks
- Bitgo
- Ledger
- Compound Treasury

# **Compound Treasury**

The in-house developed Compound Treasury is one of the few DeFi products offering fixed rate returns to institutional investors. They tout a fixed 4% APR to accredited institutions. The product aims to be an onramp for institutions entering the DeFi space. Unlike other DeFi products, you deposit cash, not crypto, to the treasury and then Compound converts it to USDC to supply to its pools.

	Compound Treasury	Business Savings Account	Crypto Lending
APR	4.00% Fixed	Very Low	> 4.00% Variable
Funding	USD or USDC	USD	USDC
Liquidity	1 Day	1 Day	Varies
Fees	\$0.00	Service-based	Transaction-based
Regulatory Structure	Debt Security	Bank Account	None

In addition, Compound Treasury is the first and only DeFi product to be S&P rated. They were given a B- rating in April of 2022, which is considered to be in the junk category. In giving this rating, they cited the difficulty associated with providing a 4% fixed return on debt in the crypto credit market.

While Compound Treasury does increase the attractiveness of Compound, given the ease with which institutions can use their real world assets to invest in DeFi, their ability to provide the touted 4% APR is questionable at best. Furthermore, there are smart contract risks, such as when a bug in the underlying protocol gave away \$80 million in Compound Tokens. Thus, I believe we should pass on Compound given that the current risks are too high, but keep an eye on Compound Treasury's growth. If the treasury is able to truly bring in non-crypto native institutions, then it would become a potentially compelling investment. However, given the S&P's rating this is unlikely.

# Clearpool

Clearpool is a permissionless marketplace for unsecured institutional capital, allowing institutions to borrow funds from a pool of lenders without collateral. While borrowers are limited to accredited institutions, anyone can become a lender. Clearpool employs single-borrower liquidity pools, meaning lenders can choose which institution they want to provide liquidity to. Furthermore, in order to provide security to the loans, Clearpool has partnered with X-Margin to calculate credit risk scores and borrower capacity. In addition Clearpool has launched permissioned lending pools, which serve as a facilitator

for loans between two institutions. The first pool was launched by Jane Street with BlockTower as its lender. The lending pool has 50m USDC for Jane Street to draw from. This marks the first time that a major Wall Street institution has entered into a credit transaction using a DeFi protocol.

I believe that Clearpool's permissioned lending pools are compelling, given that they are little risk to the protocol with it only serving as an intermediary. If Clearpool is able to expand this part of their business, then they should be able to capitalize on the growth of DeFi, especially among institutions. One potential area for concern is the level of exposure Clearpool has if the borrower defaults. As Joe discussed, the borrower could create an independent LLC that borrows this money and if it is unable to pay it back it could just file the LLC for bankruptcy leaving the larger business unaffected. In this case the lender could pursue action against compound as the intermediary in order to recoup their loss.

# **TradFi Players**

### JP Morgan

https://www.coindesk.com/business/2022/06/11/jpmorgan-wants-to-bring-trillions-of-dollars-of-tokenized-assets-to-defi/

JP Morgan was the first global bank to offer a blockchain-based platform for wholesale payments transactions. This venture is called Onyx and enables the processing, recording, and Delivery-versus-Payment (DVP) exchange of digital assets across asset classes. Onyx is powered by the JPM Coin system which serves as a payment rail and deposit account ledger, that allows clients to transfer US Dollars held on deposit with JP Morgan within the system, facilitating the movement of liquidity funding and payments in real time. As of June 11, JPM Coin has had \$350b in trading volume with the first transaction being executed on May 20.

The Onyx team has created Liink which is the bank-led, peer-to-peer blockchain network. This blockchain will enable institutions to exchange payment-related information quickly. There are over 25+ world banks that have signed up to join Liink. Over 400 institutions have signed letters of intent covering over 38 countries. There are currently three applications built on the chain: Confirm, Route Logic, and CheckMatch.

#### Confirm

Confirm allows you to embed account validation within your payment operations and unlock new data driven revenue streams. The application allows you to protect payments and facilitates the verification of the account you are sending or receiving money to using data. Confirm is marketed to improve payment efficiency, prevent fraud attempts, monetize your data, and unlock business opportunities.

### **Route Logic**

Route Logic is an application that facilitates near real-time currency conversion decisions. Through this application inquirers can streamline data exchange to validate currency convertibility and to optimize payment routing.

#### CheckMatch

CheckMatch allows for the digitization of checks and directly transmit them to lockbox providers, reducing the need for paper checks. This will reduce operational costs required to process paper checks, mitigate instances of fraud, and keep data secure through the blockchain.

All three of these applications have an API associated with, welcoming partners to join.

Onyx also has two applications stimulating the use of their blockchain. Intraday Repo (IR) enables secured intraday financing through the exchange of cash for tokenized collateral. The second, Tokenized Collateral Network (TCN) allows use to tokenize, move, and use a broader set of assets and not just cash as collateral.

They recently just started offering tokenized versions of BlackRock's money market fund shares which has fueled the large trading volume that the platform has seen over the last two months.

Their current plan is in partnership that is being led by Monetary Authority of Singapore, and includes DBS Bank and Marketnode which is being called "Project Guardian". This project tests institutional-friendly DeFi protocols which have been highlighted above such as Aave, Centrifuge, and Goldfinch.