

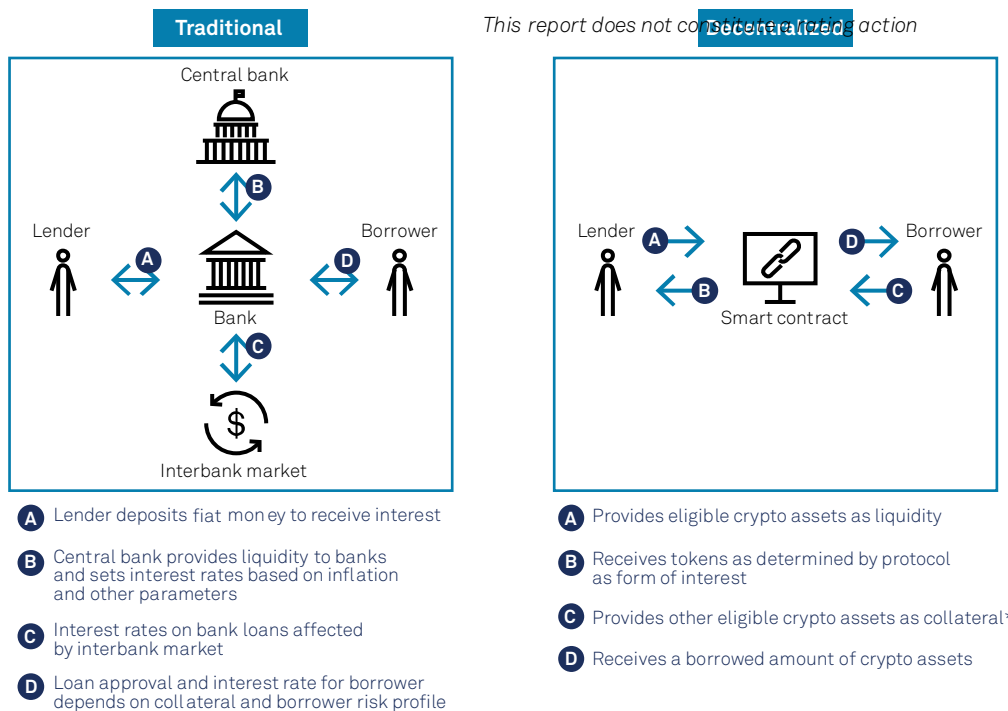
DeFi Lending | Set To Disrupt Traditional Systems-- But Not Until Constraints Are Lifted

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Lending through decentralized finance (DeFi) doesn't pose an imminent threat to traditional lenders, but hurdles such as collateral requirements and volatile digital assets could be cleared over time.

DeFi Uses Smart Contracts In Place Of Conventional Financial Risk Functions



*Most DeFi borrowing solutions require an overcollateralization based on a collateral factor. A few solutions offer unsecured borrowing.
 Source: S&P Global Ratings.

What is decentralized finance (DeFi) lending?

DeFi describes the emerging financial ecosystem that makes products and services, such as lending activities, available through distributed ledger technology (DLT). DeFi protocols enable decentralized lending and borrowing through smart contracts, which replace the usual risk functions in conventional finance. Lenders can put their cryptocurrency holdings to use and gain interest, while borrowers can receive these funds so long as they overcollateralize the amount in the form of other digital assets. This process is made possible through lending pools, all of which have their unique characteristics.

With enough collateral, any interested borrower can have access to liquidity. Interest rates are solely determined with an algorithm balancing the supply and demand of the assets lent and borrowed. In some cases, holders of the protocol's governance token can vote on interest rates as part of a decentralized autonomous organization (DAO).

DeFi lending offers the promise of returns and the means to avoid crypto assets sitting idly. With certain native currencies being continually issued at a steady pace, investors may risk losing the value of some of their digital assets to inflation. DeFi lending can help offset this risk with interest gains.

High counterparty risk requires almost systematic overcollateralization. Most lending applications don't allow for traditional credit checks on potential borrowers. Therefore, collateral posting is usually essential to mitigate credit and fraud risk. This in turn limits the sector's growth and its use cases.

The current landscape

Lending volumes are growing, but are still small. We estimate that debt outstanding is slightly in excess of \$30 billion. That represents a few basis points of global banks' total lending. As of June 30, 2021, DeFi lending and borrowing protocols made up about 18% of the total DeFi market measured by market capitalization. The four largest DeFi lending and borrowing platforms (Aave, Maker, Celsius Network, and Compound) had a total market capitalization of about \$13 billion as of mid-August, 2021. This showcases the concentration of the lending and borrowing market within DeFi.

Real risk and returns can be difficult for users to assess. This reflects the lack in many cases of consumer-protection regulations, the highly technical and fast-moving nature of the segment, and the use of different tokens in terms of purchased assets, collateral posted, or interest payment. Some of these currencies can be inflated away, and fiat-equivalent returns can be hard to assess given the volatility in various digital assets.

In September 2021, cryptocurrency exchange and services firm Coinbase received notice of a possible enforcement action from the SEC related to its interest-earning product called Coinbase Lend, illustrating, in our view, regulators' increasing focus on the segment.

Most DeFi borrowing, at present, appears to be for the acquisition of other crypto assets. There are three reasons to borrow money: i) borrowers expect the digital asset they purchased to increase in value and lock it temporarily with the existing value to receive new crypto assets that can be used for other means (e.g., staking or trading); ii) users need liquidity but aim to avoid a taxable event when selling the collateralized asset; iii) borrowers leverage their trading by holding an existing asset in a vault and use the borrowed asset to trade or compose more complex lending, borrowing, and staking activities with the same collateral base. These overcollateralized use cases limit the threat to traditional lenders.

Some recent protocols are testing uncollateralized lending. For example, protocols launched in 2020 aim to test uncollateralized lending with a credit approval process delegated to a decentralized network of credit approvers. These approvers receive rewards for correct credit predictions in the form of native tokens, and the digital tokens used throughout are in some cases pegged to the dollar. Volumes remain small, while a high annual percentage rate has restricted demand so far. However, should demand and offers take off, these protocols could represent the main threat to traditional finance.

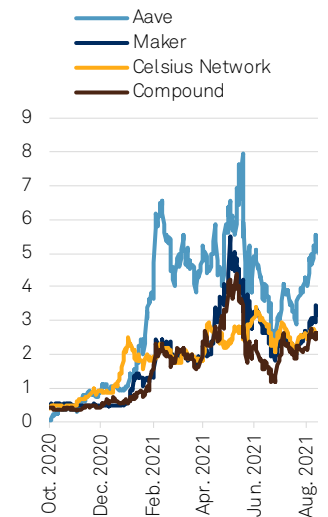
The credit implications

DeFi lending could improve the liquidity of certain digital assets. Holders of better-established digital assets (such as bitcoin and even nonfungible tokens) can diversify their portfolios by pledging existing digital assets for the purchase of other types. DeFi lending can therefore improve liquidity within the overall digital assets ecosystem.

DeFi lending and borrowing does not come without risk. Given the typically collateralized nature of the activities, we believe that volatility in the valuation of the digital assets posted as collateral could translate into volatility in the valuation of the digital assets acquired. The volume of activities remains relatively low, but greater DeFi lending volumes could ultimately lead to increased contagion risks between digital assets. This could also occur because of automated liquidations that materialize if the collateral provided drops below a predetermined value. Smart contract risks (such as bugs in the code) could also lead to losses for users, as demonstrated by certain protocols in recent months.

In their current use, DeFi lending activities do not threaten traditional lenders' position. For now, most DeFi lending activities appear to be a process of using digital asset collateral to acquire new digital assets. It therefore poses a limited threat to the existing core franchise of traditional lenders. Several hurdles--whether technical, process-linked, or regulatory--must be cleared before DeFi lenders can bridge the gap to traditional finance at scale. However, should recent trials prove successful, more traditional use cases could take off, and these protocols could start competing with traditional lenders.

Market Capitalization Of Top-Four DeFi Lending Protocols (Bil. \$)



Data as of Aug. 18, 2021.
Source: CoinMarketCap.

DeFi lending remains small at about \$30 billion; use cases haven't yet crossed the bridge to traditional finance