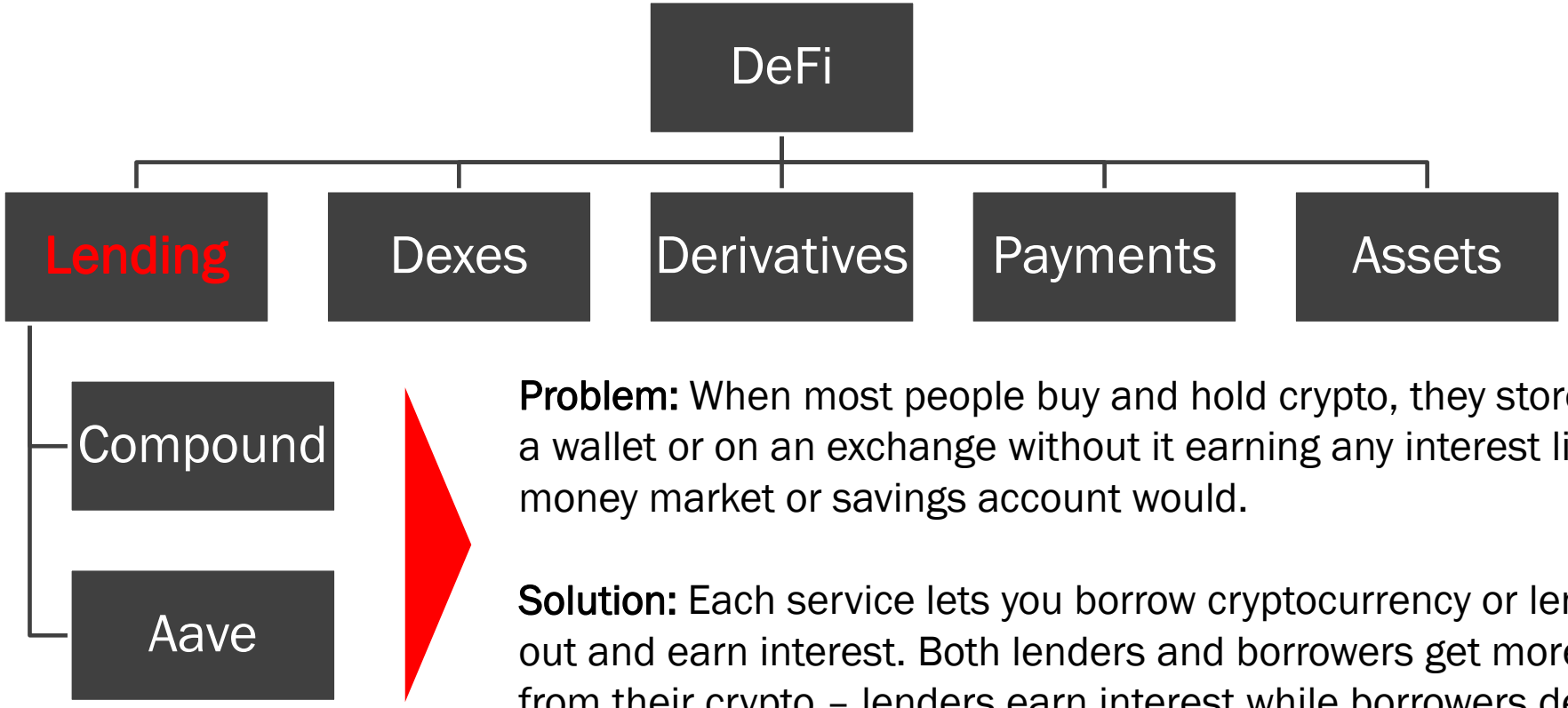
DEFI MONEY MARKET PROTOCOLS

AAVE & COMPOUND

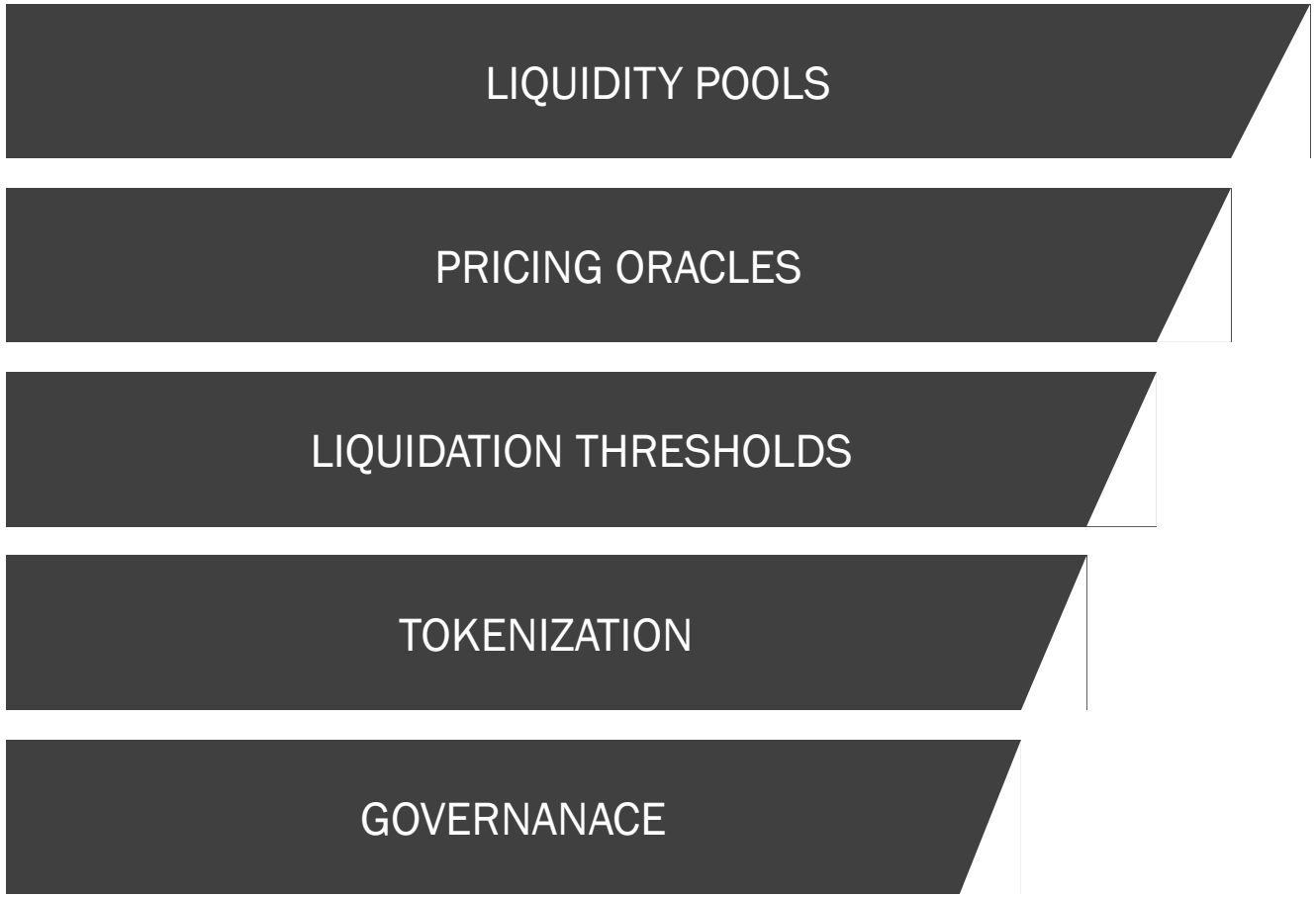
AAVE AND COMPOUND OCCUPY THE SAME DEFI SUBSPACE AND SOLVE FOR THE SAME GENERAL PROBLEM



Problem: When most people buy and hold crypto, they store it in a wallet or on an exchange without it earning any interest like a money market or savings account would.

Solution: Each service lets you borrow cryptocurrency or lend it out and earn interest. Both lenders and borrowers get more value from their crypto – lenders earn interest while borrowers deposit crypto to gain access to credit.

THEY SOLVE FOR THIS PROBLEM THROUGH SHARED CHARACTERISTICS...



Avoid P2P matching issues by using pool-based strategy where lenders deposit crypto into a pool contract. Lenders and Borrowers can create and exit positions at will as there is no negotiation of terms with a specific counterparty.

The interest rate for both borrowers and lenders is decided algorithmically and is based on supply and demand for a given liquidity pool.

A pre-set LTV must be maintained. Positions are liquidated when collateral-to-borrow value falls below a certain ratio. Reaching this ratio triggers a liquidation bonus, incentivizing liquidators to buy the collateral at a discounted price.

Tokenization allows for interoperability. By turning all balances inside a defi protocol into ERC20 tokens it makes them supported by other projects. The ERC20 standard is the glue of defi.

Both protocols have decentralized governance models. COMP token and soon AAVE token empower holders with the ability to vote on proposals and collectively act as governors of the protocol. Liquidity mining is a means of earning the governance token.

...HOWEVER, AAVE HAS TWO MAIN DIFFERENTIATING FEATURES

STABLE RATES

- Stable rates are not fixed rates, but they change only when current rates move too far from the initial rate. Users experience actual fixed rates during specific time periods, or when there is enough liquidity available.
- The motivation for stable rates is to help borrowers' financial planning.

FLASH LOANS

- Flash loans allow for the simultaneous borrowing and repayment of a loan within a single transaction.
- Similar to how lending allows for short selling of cryptocurrencies and provides a check on the market, this innovation opens new opportunities like arbitrage.
- It also should boost utilization rates[1]

[1]Further discussion on slide 10

PROTOCOL COMPARISON

ANALYTICS (as of 10/12/2020)Liquidators	COMPOUND	AAVE
Market Metrics		
Token Ticker	COMP	LEND
Market Cap	$302.1M	$670.3M
Total Value Locked	$849.2M	$1.17B
MV/TVL	0.36x	0.57x
Token Chain	Ethereum	Ethereum
Token Rank	52	32
Defi Token Rank	11	4
Token Issuance Mechanism	Minded by users	ICO
Return TTM	n/a	8,460.7%
Return Since Listing	16.46%	3,289.27%
Risks		
Counterparty Risk	No	No
Vulnerability in the smart contract	Yes	Yes
Congestion in the Ethereum Network	Yes	Yes
Bug Bounty	Up to $150,000	Up to $250,000
Smart Contract Audited	Yes	Yes
Oracle Failure Risk	Yes	Yes
Liquidation Mechanism	Liquidators incentivized by discount	Liquidators incentivized by discount
Utility		
Decentralized Governance	Yes	Yes
Reward Program	Yes	No
Burn Mechanism	No	Yes

Sources: Coinmarketcap, defipulse, Cryptonites, coincodex, whitepapers

COMPOUND CONSISTENTLY HAS THE LEAST PLATFORM RISK IN THE MARKETS IT PARTICIPATES; AAVE IS RELATIVELY LOW RISK AS WELL

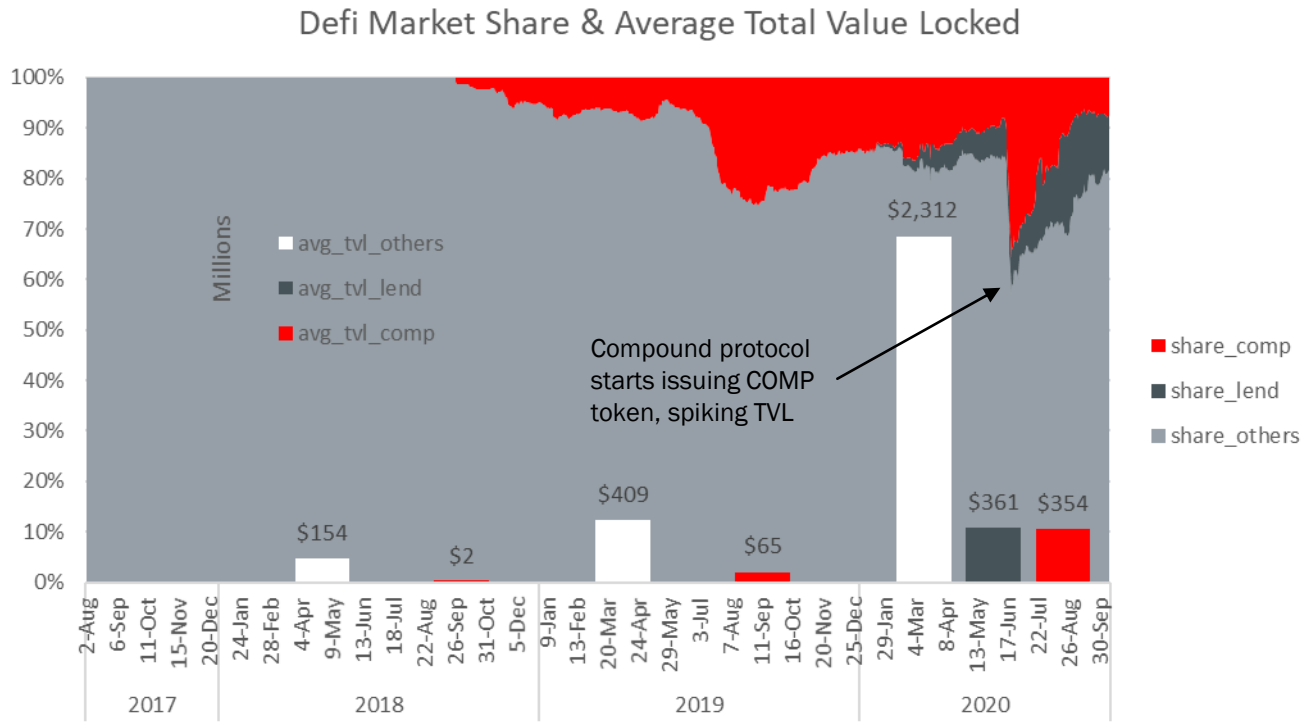
DeFi Score

	DAI	SAI	USDC	ETH	WBTC	REP	MKR	ZRX	BAT	KNC	LEND	LINK	SNX	TUSD	USDT	SUSD
Compound	8.0	8.4	8.4	8.9	8.8	8.7	-	8.5	8.8	-	-	-	-	-	7.8	-
dYdX	7.5	-	8.0	8.3	-	-	-	-	-	-	-	-	-	-	-	-
bZx	4.9	4.9	4.8	5.0	4.8	-	-	4.9	-	4.8	-	4.7	-	-	4.5	4.7
Nuo	4.9	5.0	5.0	5.0	4.8	4.8	4.7	4.8	4.9	4.8	-	4.9	4.9	4.8	-	-
DDEX	7.2	7.4	6.8	7.6	7.3	-	-	-	-	-	-	-	-	-	6.8	-
Aave	6.7	-	7.3	7.3	7.7	7.3	7.5	7.4	7.4	7.5	7.7	7.7	7.3	7.5	7.0	6.4
Oasis	9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: DeFi Score

Note: The DeFi Score is a single, consistently comparable value for measuring platform risk, based on factors including smart contract, centralization and financial risk

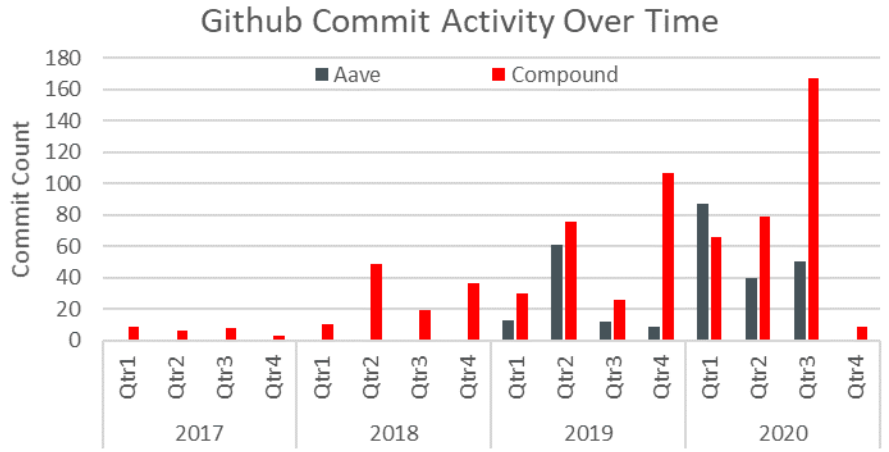
BOTH GAINED MARKET SHARE SINCE LAUNCH, WITH COMPOUND SPIKING THEN SUBSEQUENTLY REVERTING

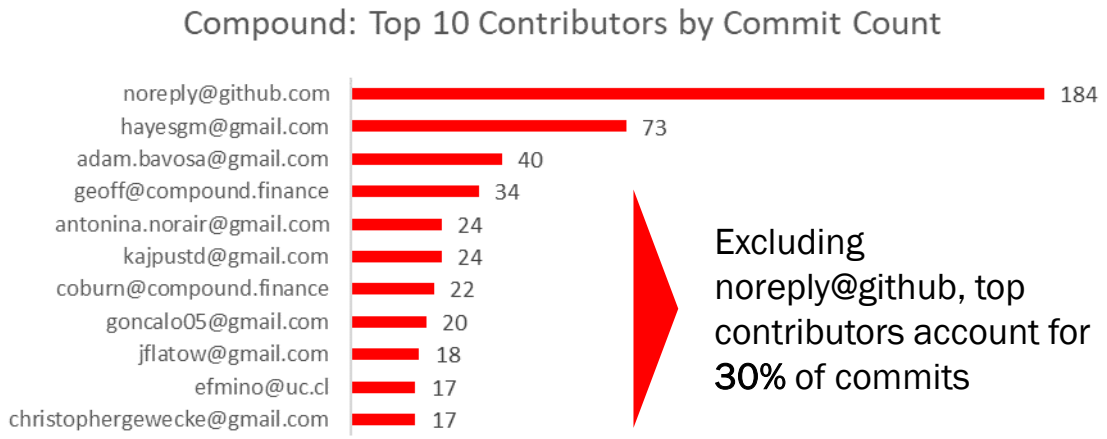


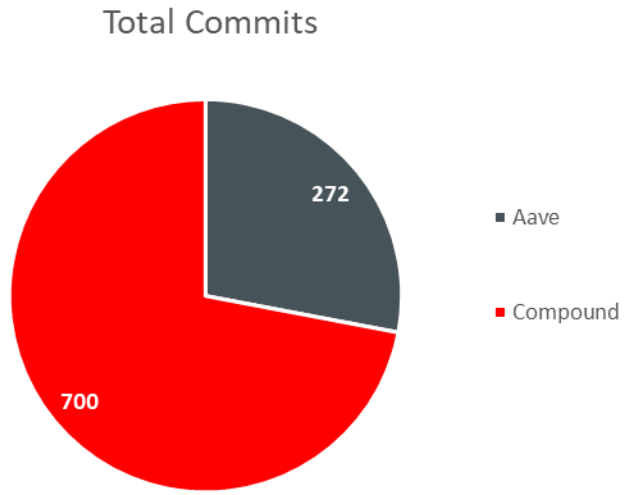
Source: DeFi Pulse

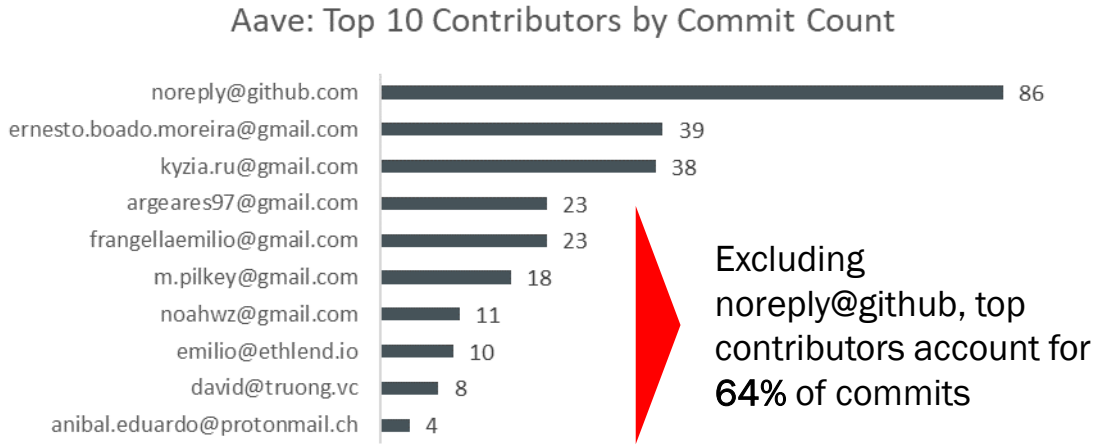
"An increasing amount of funds locked in DeFi over time represents growing confidence among consumers to place their money in the hands of smart contracts in order to interact with these new financial tools" – ConsynSys Q2 2020 DeFi Report

COMPOUND RAMPED DEVELOPMENT IN Q3 2020; AAVE TOP CONTRIBUTORS ACCOUNT FOR OVER 60 PERCENT OF COMMITS



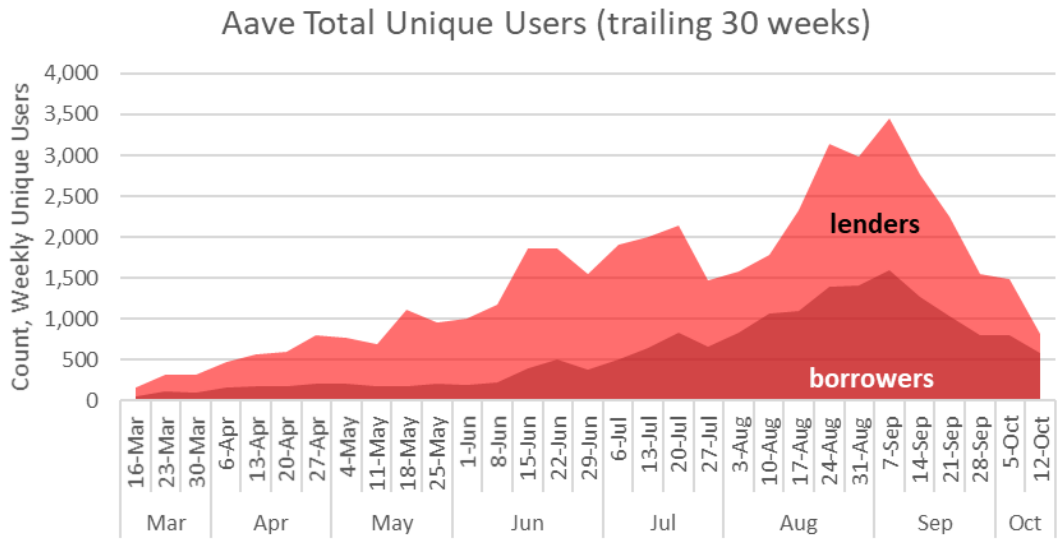


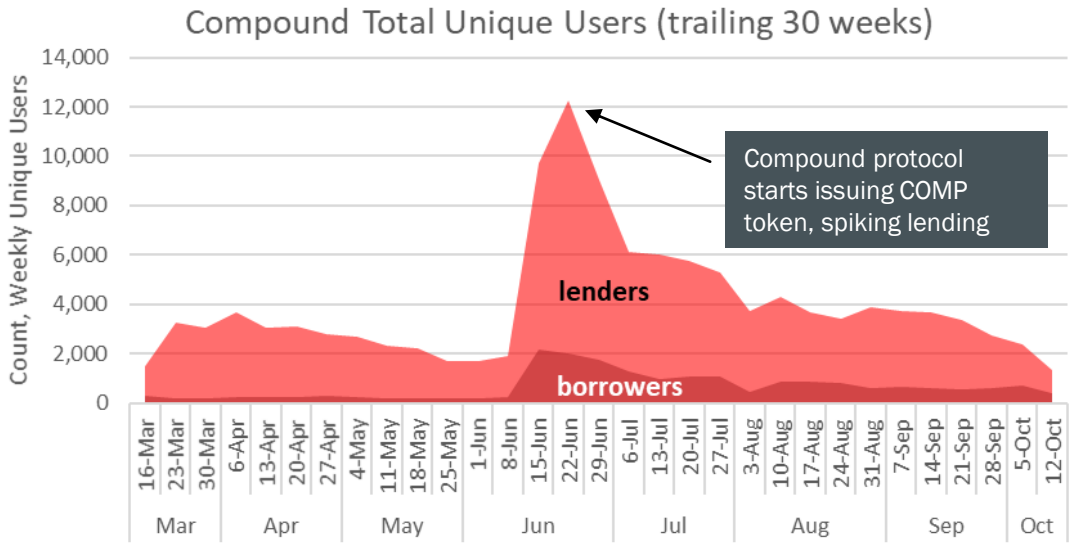




Source: Github

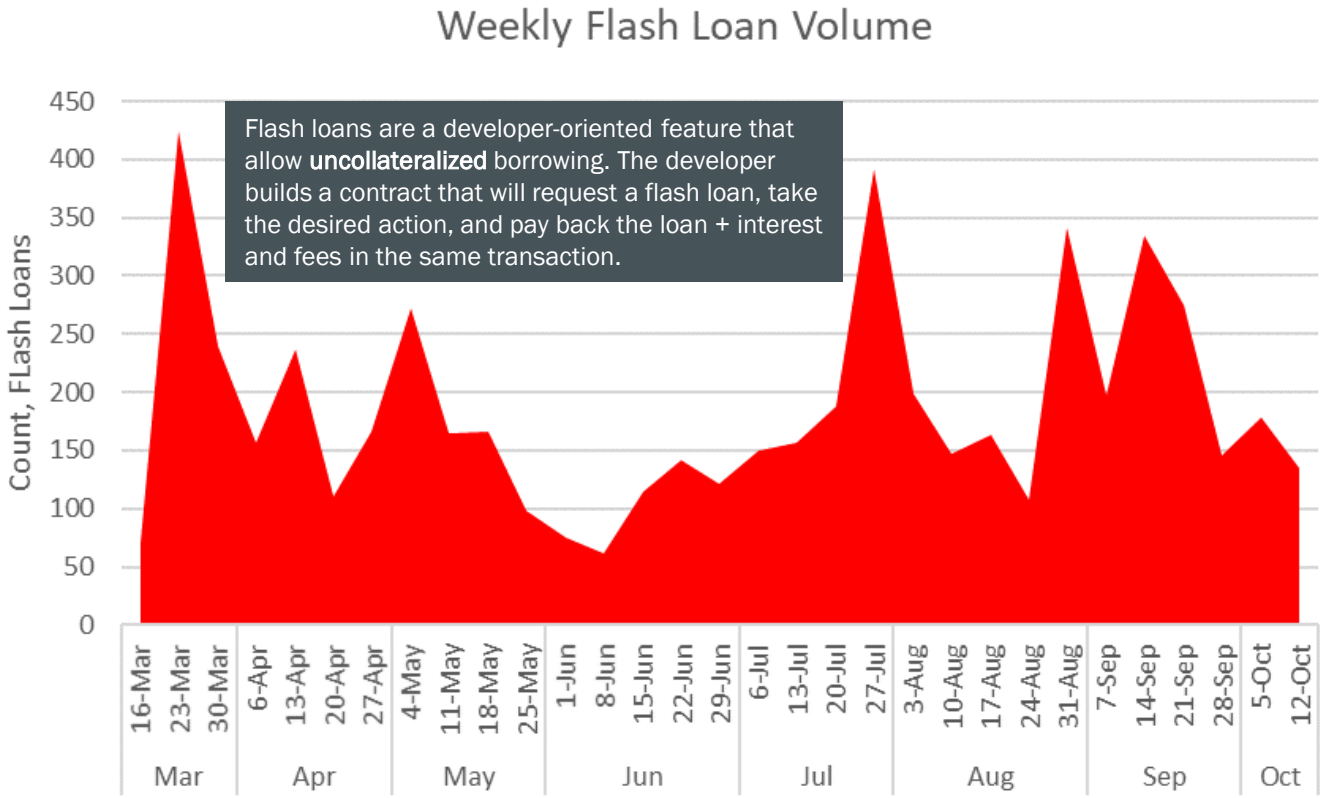
IN THE LAST WEEK, AAVE HAD 35% LESS LENDERS THAN COMP, BUT 50% MORE BORROWERS IMPLYING HIGHER UTILIZATION RATES





Source: Dune Analytics

AN AAVE INNOVATION, FLASH LOANS ARE PROMISING BUT DO NOT YET HAVE SIGNIFICANT UPTAKE FROM DEVELOPERS



Source: Dune Analytics

Use Cases & Motivation

- Higher yields – each flash loan carries 35pbs fee, 80% goes to depositors, 20% goes to burn lend token
- Bots – arbitrage, liquidation, refinancing, collateral swap (allows developers to create and offer to ecosystem)
- Prevent liquidation – saving the ~13% loss from discounted collateral sale
- Cheap liquidity will lead to higher utilization rates

FURTHER AREAS TO EXPLORE GIVEN MORE TIME

- Integrations
  - Research how many dApps are using each protocol
- True TVL
  - Leverage inflates the TVL value. I would like to look into how to account for this. Codefi seems to be addressing this, but their tools/analysis is not yet available. Their example: “a user may lock 1 ETH in Compound and receive 250 DAI as a loan (assuming 1 ETH = $250), then move to another protocol and lock that 250 DAI up. If we look at TVL, we would say that $500 USD is locked in DeFi, when in reality the true locked USD value is just the value of the initial locked ETH, $250.”
- Team
  - This would be on the due diligence checklist, but I didn’t spend time on the team as this info is widely available (at least to the extent I can research them online without having direct access) and these are reputable teams with track records (a16z is already invested in compound).