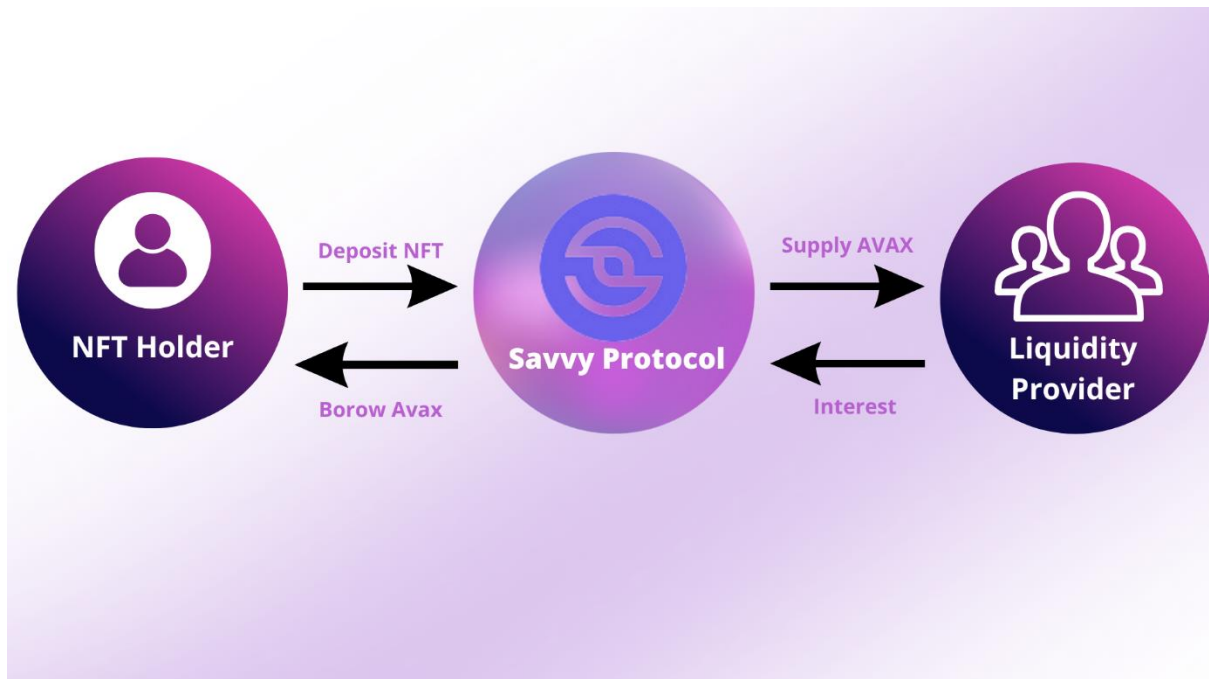


Deposit & Borrow

NFT Lending on Savvy Protocol



Get a loan by depositing NFTs into Savvy Protocol

NFT holders start by depositing their NFTs at Savvy. Holders of NFTs first place their NFTs into a Savvy Protocol. A collection's FP (Floor Price) oracle price is used to value each NFT in real time. Thus, by choosing a number of NFTs, it is feasible to create a simple quick loan. NFTs have converted into binding NFTs in a lending pool.

Lending Pool (NFT Market) holds the following

- Liquidity provided by the provider (AVAX)
- Collateralized NFTs
- Interest fee incurred over the liquidity loan period (AVAX)

The AVAX Lending Pool that NFT holders are going to lend has an upper limit (Cap) that modifies the deposit and loan amounts and is integrated in real time with the current Savvy AVAX Lending Pool. Therefore, if the utilization rate surpasses a particular number, the loan interest rate may change quickly, according to the dynamic interest rate setting model.

NFT Lending Process

1. Check out the NFT Market's list of NFT collections.
2. NFTs are Deposited & Borrow to the chosen collection.
3. Now deposit the NFT you intend to use as collateral and receive an instant loan for the same amount.
4. When you repay all the loan (Repay all), you will immediately get your NFT back
 - If they are all from the same collection, it is possible to choose more than one NFT to serve as collateral, and each time the total amount that may be borrowed increases.
 - Based on FP as evaluated by oracles, the collateral value of NFTs is determined.
 - If the NFT's collateral value is insufficient to pay off the user's loan, liquidation occurs, with an auction serving as the method of liquidation.

Can all NFTs be used as collateral?

For whitelisting, NFT collections are carefully assessed and chosen. The value of NFT collections is assessed using a variety of factors, therefore each collection may have a different LTV and maximum loan cap

Interest

How does the interest in NFT Lending work?

The AVAX - Lending pool in Savvy provides liquidity for AVAX in NFT Lending. As a result, it has an interest rate curve that is based on how much capital the pool is currently using.

Borrow rate of NFT Lending

However, the risk management slope for NFT Lending pools is distinct from the utilization slope for Savvy Crypto Lending pools. For instance, if the pool's current utilization rate is 45% and its lending rate is 5%, the NFT Lending pool's lending rate will be close to 10%. AVAX collected at the higher loan interest rate is transferred to NFT Lending's AVAX-Reserve, and the loan interest rate is then changed on a regular basis to control liquidity risk and enhance lending activity.

What makes up the NFT deposit interest rates (Supply Rates) for NFT holders?

Loans collateralized by NFTs are made concurrently with NFT deposits. Therefore, it is impossible to farm with simply NFT deposits.

What makes up the borrowing rates of borrowers with NFT collateral?

When posting NFT collateral and making a loan, the borrower is responsible for paying this interest.

Borrow Interest

Asset	Optimal	Slope 1	Slope 2
AVAX	65%	8%	100%

NFT Lending interest rate

AVAX Market Utilization Rates	AVAX Borrow Interest (AVAX)
1%	1%
5%	2%
10%	4%
20%	8%
30%	12%
40%	16%
50%	20%
65% (OPTIMAL)	60%
70%	100%
80%	140%
90%	180%
100%	220%

The NFT Lending rate is directly related to the AVAX-Lending pool's Savvy utilization rate. The integration of lending pools offers quick lending liquidity to NFT holders and boosts the utility of current Crypto Lending pool liquidity providers, with both parties benefiting from increased capital usage advancements.

Liquidate

liquidation process

When the NFT collateralized value (FP) of the NFT-collateralized borrower is unable to pay the loan, liquidation takes place. The procedure of disposing of the borrower's NFT is thereby included in the debt forgiveness process. In Savvy, the liquidation procedure lasts for 24 hours and is carried out as a public auction.

Health Factor

The health factor (HF, Health Factor), a statistic that represents the soundness of NFT-secured borrowers' loans, is used to determine if liquidation is possible.

- $HF : (\text{Floor price} * \text{Liquidation Threshold}) / (\text{debt} + \text{interest})$
 - $(\text{Debt} + \text{interest})$: Borrower's Debt
 - FP : Floor price
 - Liquidation Thresholds : This is the threshold point in terms of a borrower's position that allows for liquidation and under-collateralization. For instance, if the collateral's liquidation threshold is 50%, the loan will be liquidated when the debt balance reaches 50% of the value of the collateral.

HF risk level determination

- Liquidation can be triggered : $HF \leq 1$
- Red : $1 < HF \leq 1.11$
- Orange : $1.11 < HF \leq 1.25$
- Green : $HF > 1.25$

The secured borrower's NFT reaches an auctionable status when HF hits 100%. When the first bid is placed at this point (triggering), a live auction lasting 24 hours takes place.

NFT FP price feed oracles

To determine the value of the NFT, the floor price of the collection is mostly dependent on opensea's floor price. A time-weighted average price (TWAP) and several other techniques are used to determine the value. To increase the sophistication of value assessments, a marketplace can be added.

Risk management

Savvy Protocol enables NFT owners to actively engage in the DeFi ecosystem, and it is obvious that NFT Lending has enormous potential. However, because of insufficient liquidity, there is also an issue with poor collateral. The protocol's inherent risks are examined in the sections that follow, along with a description of how to mitigate them.

Savvy's NFT Lending collateral requirements have undergone enough stress testing to demonstrate that even under extremely difficult situations, floating loss risk and market effect may be reduced. A governance vote that will be held later will allow all statistics to be changed in the meantime.

Five important indicators are utilized to evaluate the approved NFT collateral used in the process.

- Amount of transactions (number of sales)
- Asset value (average asset sale value)
- Activity (number of dapp transactions including bidding and other interactions)
- Community (number of unique wallets interacting at dapp level)
- Retention (wallet activation percentage; for example, when a user is only active one day per week, retention is 14.3%).

These are the standards by which NFTs are chosen using these indications.

NFT collateral qualifying standards

- Over 10 AVAX for the FP price and 30-day average floor price
- Market cap \geq FP * 10,000
- Number of distribution items \geq 5,000
- Number of owners \geq 1,000
- Total trading volume by OpenSea \geq 1,000 ETH
- 30+ Day Collections Since Launch
- Random NFT minting when reveal

NFT Risk parameter

All parameters are set up initially, and we plan to continuously monitor market indicators of whitelisted NFTs and adjust various risk parameters such as collateral recognition ratios and exclusion from the collateral allowlist.

For example, we will freeze new collateral loans for the NFT, adjust liquidation thresholds, LTV, increase loan caps, and exclude from the whitelist.