

# Yieldoor Explained

## Vault

- This is the entry point for users who do not want to use leverage on their positions. The only user-facing functions are `deposit` and `withdraw`. Both deposit and withdraw should always happen in the same asset ratio as the Strategy currently is (excluding the not-yet-vested position).
- Deposits send the funds directly to the strategy, where they are actively managed

## Strategy

- In order to utilize the most out of the funds within it, 2 positions are made - 1 wider which aims to be 50:50 (or as close as it can get, depending on pool's tickspacing). The other one should be filled with whichever token is left after filling the main position. In order to achieve this, the secondary position is always Out-Of-Range right after rebalancing.
- In order to incentivize users to LP in a certain Vault, owners can add a vested position which is distributed among Vault depositors over time. Only one Vested position can exist at a time.
- No user is (or should) be able to directly add liquidity to any of the positions. Rebalancer is expected to regularly call `compound`/`rebalance`, making sure no liquidity is added when pool's price is manipulated/ inaccurate.

## Leverager

- Allows users to borrow tokens in order to leverage their positions. Users are able to borrow any whitelisted token to leverage their position (e.g. user could borrow WBTC to leverage his WETH/USDC position)
- At least one of the assets in each whitelisted vault within the Leverager must have a set trustworthy pricefeed.
- If one of the tokens does not have a pricefeed, the underlying pool's TWAP price is used to convert it to the other token, and from there use its pricefeed to convert it to USD.
- Please note Vaults in which one of the underlying tokens is another vault will never get whitelisted within the Leverager.
- The `pullFunds` and `pushFunds` methods were introduced to allow for simple and clean flashloaning of funds. We are aware of the drawback that this would result in users not being able to borrow the entirety of the remaining funds within the LendingPool and 100% utilization can only realistically be reached after redeem and not after a borrow.

Please note that the rest of the contracts are forked from Extra Finance, with very slight adjustments

## LendingPool

- Allows lenders to lend their assets to Leverager
- Each asset needs to first be whitelisted by the protocol's governance

- In order for an asset to actually be borrowed within Leverager, it would need to have a pricefeed set.

#### yToken

- Simple ERC20 which starts at 1:1 rate with underlying and increases in value
- Only LendingPool can transfer underlying tokens
- All available liquidity of underlying token is stored within the yToken contract.