IRON.FINANCE

Polygon Network

Partial-collateralised stablecoin

BinanceSmartChain | **polygon**

1inch   QuickSwap   AutoFarm   AdamantFinance   FireBird

SushiSwap   ElevenFinance   PolyCatFinance   BeefyFinance   KogeFarm

Telegram: ironfinance   Discord: HuekxzYj3p

Important information

IRON token

TITAN token

Protocol

Information

What is IRON?

IRON token is a partially collateralised token, soft pegged to the U.S. Dollar. The protocol aims to maintain IRON token's price stability, in other word the peg, by storing sufficient collateral in the time-locked smart contracts. This collateral is used for redemptions, helping to maintain price stability.

The collateral consists of two tokens. USDC and TITAN token. The USDC token is deposited into the protocol when a user mints IRON token, while the TITAN token, serving as collateral is burned when a user mints IRON token and minted by the protocol when a user redeems IRON token.

The ratio of USDC and TITAN token used by the minting and redeeming function is determined by the Target Collateral Ratio (page 13) and the Effective Collateral Ratio (page 12).

Quick facts

- Collateralised with USDC and TITAN token.
- Minted with approximately $1.00 worth of deposit.
- Redeemed for approximately $1.00 worth of tokens.
- Polygon address: 0xD86b5923F3AD7b585eD81B448170ae026c65ae9a

Minting

Minting is the name of the process which creates IRON tokens. In order to mint 1 IRON token, the user must deposit approximately $1.00 worth of collateral into the protocol in the form of USDC and TITAN token. The ratio of USDC and TITAN token that is required for minting IRON token is determined by the Target Collateral Ratio (TCR) (page 13), or TCR in short.

The percentage of USDC token required always equal to the TCR percentage, while the required percentage of TITAN token is 100% minus the TCR percentage. The TITAN token used in the minting process is burned, decreasing the circulating supply of TITAN token.

As of June 10, 2021 minting IRON tokens has a 0.3% fee, which is deducted from the amount the user receives.

Example

If you would like to mint 1,000 IRON tokens and the TCR percentage is 75%, then you need 75% USDC and 25% TITAN token or 750 USDC token and 250 USDC worth of TITAN token as collateral.

Redeeming

Redeeming is the name of the process where the user returns IRON token to the protocol in exchange for collateral. The protocol burns the redeemed IRON token and pays the user approximately $1.00 worth of value in USDC and TITAN token.

The ratio of USDC and TITAN token paid to the user is determined by the Effective Collateral Ratio (page 12), or ECR in short. The ECR percentage equals to the percentage of USDC token the user receives in the redeeming process, while the percentage of TITAN token paid to the user is the sum of 100% minus the ECR percentage. The TITAN tokens received in the redeeming process is minted, increasing the circulating number of TITAN tokens.

As of June 10, 2021 redeeming IRON token comes with a 0.4% fee, which is deducted from the amount the user receives.

Example

If you would like to redeem 1,000 IRON token and the ECR percentage is 85%, then you should receive 850 USDC token and 150 USDC worth of TITAN token.

Collateral

The protocol works with two collaterals, USDC and TITAN token. USDC token is received by the protocol when the user mints IRON token and this deposited USDC is stored in the protocol's time-locked smart contracts. The TITAN token which is used in the minting process is used as collateral dynamically, meaning when the user mints IRON token using USDC+TITAN token, then TITAN token is burned and if the user redeems IRON token, then TITAN token is minted.

The Effective Collateral Ratio (page 12), or ECR in short, is the percentage of USDC stored as collateral relative to the supply of IRON token. If the ECR is 85% and the supply of IRON is 10 million, then 8.5 million USDC is stored in the protocol, while the other 1.5 million IRON is dynamically collateralised with TITAN token.

Price stability

The IRON token's price stability is supported by multiple mechanisms. The main pillar of the price stability comes from the possibility of redeeming IRON token for approximately one U.S. Dollar worth of tokens.

Another mechanism to support the price peg is the arbitrage opportunity offered by the minting and redeeming functions.

If the price of the IRON token is less than one U.S. Dollar, then anyone can purchase it on the open market and redeem it for approximately one USD worth of value.

If the price of the IRON token is more than one U.S. Dollar, then anyone can mint it with the protocol for approximately one USD worth of value and sell it on the open market.

Furthermore, the Target Collateral Ratio (page 13), or TCR in short, modifies the required percentage of the native token in the minting process.

What is TITAN?

TITAN token is IronFinance's share token, functioning as collateral and it allows users to receive income by staking it.

In the first year the maximum supply of TITAN token is limited to 333,333,550. The total maximum supply is 1 billion over 36 months.

The circulating supply of TITAN token changes because it is both burned when someone uses it to mint a IRON token and it is also minted when someone redeems IRON token.

TITAN token holders can stake their token to receive income from the vaults (page 14).

Quick facts

- It serves as collateral besides USDC token.
- It is burned when used for minting IRON token.
- It is minted when IRON is redeemed.
- Investors can receive income by staking it.
- Polygon address: 0xaAa5B9e6c589642f98a1cDA99B9D024B8407285A

Farming and staking

Users can farm TITAN by providing liquidity with QuickSwap or SushiSwap and depositing their LP tokens on IronFinance's own website. These farms are not auto-compounding, however IronFinance has partnered with multiple DeFi protocols (page 11) to offer auto-compounding farming options as well. All of the following liquidity farming pools are 50%-50% ratio TITAN pools. There is no locked rewards with any of the pools.

50% IRON	⟷	50% USDC	223,744/day →	TITAN
50% IRON	⟷	50% USDC	223,744/day →	TITAN
50% TITAN	⟷	50% ETH	65/day →	QUICK
50% TITAN	⟷	50% MATIC	191,780/day →	TITAN
50% TITAN	⟷	50% IRON	95,890/day →	TITAN
100% TITAN		10,000/day →	USDC	

* Rates of rewards as of June 10, 2021

Auto-compounding vaults

Users can choose from a wide range of auto-compounding vaults providers, where they can farm their QuickSwap and/or SushiSwap LP tokens. These farms do not emit additional TITAN tokens, instead they simply connect to our non auto-compounding farms on our website and auto-compound the TITAN rewards to increase the number of LP tokens in the liquidity pools.

	BeefyFinance	PolyCatFi	ElevenFinance	AutoFarm	FireBird	Adamant	KogeFarm
IRON/USDC	●	●	●	●	Boosted ●	Boosted ●	
TITAN/ETH	●		●			Boosted ●	
TITAN/MATIC	●	●		●		Boosted ●	●
TITAN/IRON	●	●		●		Boosted ●	●
TITAN staking		Boosted IRON	Boosted IRON			Boosted IRON	
IRON staking		Boosted IRON	Boosted IRON			Boosted IRON	
TITAN/USDC					Boosted ●		
IRON3pool					Boosted ●		

ECR

ECR stands for Effective Collateral Ratio and it is showed in percentage. This percentage expresses the amount of USDC token stored as collateral for the IRON token.

If the Target Collateral Ratio (page 13), or TCR is short is lower than ECR, then the protocol has Excess Collateral. TCR is usually lower than ECR when the demand for the IRON token is high and the price stays above the peg.

If the TCR is higher than the ECR, then the protocol has no Excess Collateral. TCR is usually higher than the ECR when the price of IRON token stays around and below the peg for extended period of time.

Example

If you would like to redeem 1,000 IRON token and the ECR percentage is 85%, then you should receive 850 USDC token and 150 USDC worth of TITAN token.

TCR

TCR stands for Target Collateral Ratio and it is showed in percentage. This ratio expresses what percentage of USDC token is required to mint IRON token.

If the time weighted average price of IRON token in the past hour is more than $1.00, then the protocol lowers the TCR by 0.25%. If it is less than $1.00, then the protocol increases the TCR by 0.25%.

TCR can increase or decrease by maximum 0.25% per hour and maximum 6.00% per day.

Example

If TCR is 75%, then the user needs to provide 75% USDC token and 25% TITAN token to mint IRON token.

Vaults

USDC tokens used as collateral for the minted IRON tokens is stored in the protocol's time-locked collateral smart contract, however in optimal conditions the daily redemptions are only a small part of the supply of IRON token. In this case a large portion of this collateral is idle and economically speaking inefficient. Vaults changed this by investing a large portion, but not all of the USDC token collateral to generate passive income to the protocol and to the TITAN single token staking pool to incentivise TITAN purchases and staking.

Out of all the USDC the protocol stores as collateral, a maximum of 75% is invested into Vaults, while the remaining 25% is kept by the protocol to serve the daily redemptions of IRON token.

If this 25% of all the USDC collateral, stored in the protocol's time-locked collateral smart contract, serving the daily redemptions of IRON token, decreases to 15% or less, then the Vaults will withdraw some of the invested USDC tokens back to the protocol.

Vaults - explanations

Invested Collateral Ratio is the percentage of all the USDC collateral that is set to be invested via the Vaults to generate income to the TITAN single token staking pool and to the protocol.

Effective Reserve Collateral Ratio is the present percentage of all the USDC the protocol stores as collateral that is not invested with the Vaults but kept in the protocol to serve daily IRON token redemptions.

Reserve Threshold Ratio is the set percentage of all the USDC collateral the protocol stores for the IRON redemptions, at which percentage level the protocol will withdraw some of the USDC investments from the Vaults to have more USDC collateral at the protocol for the IRON token redemptions.

Smart-contracts

The following smart contracts are owned by a time-lock contract with a 24 hours minimum time-lock.

Time-lock
0xb348c6Aa6a6429C6d04eABA739F8a9dC7C50b4De

Treasury
0x4a812C5EE699A40530eB49727E1818D43964324e

USDC Collateral
0xD078B62f8D9f5F69a6e6343e3e1eC9059770B830

USDC Vaults
0x21401319caBA905010Ee77A36f87BD176Edc4b96

BURNED

USDC

% ratio equals to TCR

+

% ratio equals 100% - TCR

TITAN

IRON

IRON

USDC

% ratio equals to ECR

+

% ratio equals 100% - ECR

TITAN

MINTED

USDC income

USDC investments

IRON minting & redeeming fee

Vaults

TITAN staking pool

USDC collateral
*max. 75%