

Amun | June 2020

# **Amun Leverage Tokens**

A smart contract to enable purchases of Short and Leveraged  
Crypto Exposure for Stable Coins

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# Introduction to Amun

**Amun is a leading cryptocurrency issuer which aims to make purchasing crypto more accessible, and efficient.**

**Under its 21Shares brand, Amun is the world's largest issuer of crypto exchange-traded products (ETPs). The 21Shares suite of ETPs has simplified access to crypto for both institutional and retail investors in the traditional finance community. In a similar fashion, Amun aims to provide tokens that will make it easy for the crypto community to access sophisticated strategies that are not otherwise readily available in this space. Amun is a team of entrepreneurs, engineers, and financial product developers who are uniquely placed to revolutionize cryptocurrency investing through the issuance of our broad range of tokens. Our goal is to make these tokens present a new paradigm in cryptocurrency investing and to facilitate their use.**

Our investment in superior technology and automation has enabled us to both release all these products, as well as work directly with top organizations including the Bitcoin Cash Foundation, Bitcoin Suisse, Binance, Bitwise, Coinbase, FlowTraders, Sygnum, and the Tezos Foundation as launch partners or customers of the Amun Platform.

## Disclaimers

This document sets out some of the technical details behind the Tokens. The Tokens are issued by Amun Limited (the Issuer) who accepts no responsibility for the contents of this document. Any information provided in this document or otherwise by the Issuer is given for general information purpose only and the Issuer does not provide any warranty as to the accuracy and completeness of such information. Any person considering purchasing, selling or otherwise dealing in the Tokens must make their own determination as to the suitability of the Tokens for their own purpose.

The Tokens are complex products which incorporate a high degree of risk and should only be bought or traded in by persons with appropriate technical knowledge who have experience with similar products.

Nothing in this document (or any other documents mentioned herein) is or should be considered to be an invitation to enter into an investment and is not intended to be an offering of securities in any jurisdiction nor does it constitute an offer or an invitation to sell shares, securities or rights belonging to the Issuer or any related or associated company. Neither the Tokens nor any documents associated therewith have been registered with or approved by any regulator in any jurisdiction.

The Tokens are not available for purchase by individuals or entities who are ordinarily resident in the United States, Switzerland, the Seychelles or any other country on the Prohibited List

available on the website of the Issuer. The Issuer reserves the right to restrict the sale of the Tokens in any jurisdiction or to any individuals or entities from time to time.

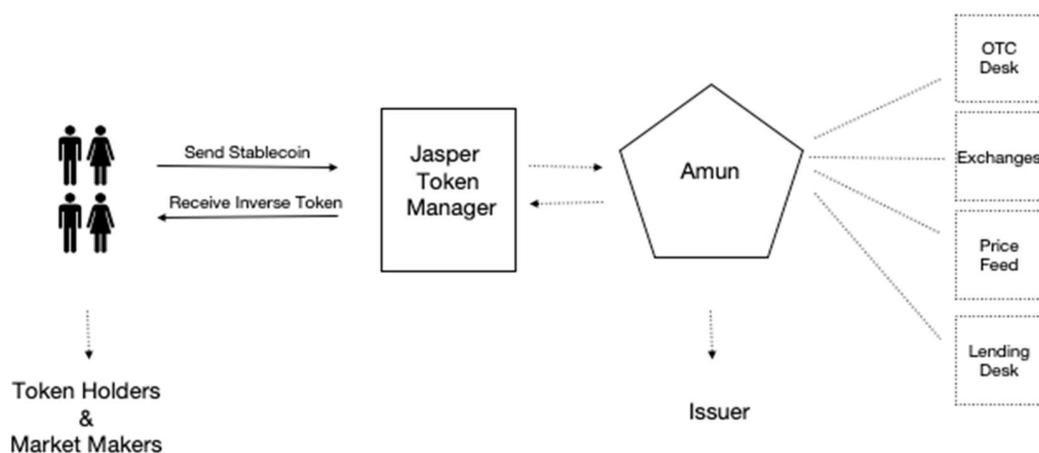
The legally binding terms relating to the Tokens are set out in the Terms and Conditions and the Terms of Service applicable to the relevant Tokens.

## Summary of Token System

As set out above, the Issuer may choose to hold assets back the exposure of Tokens and in such cases will make use of automated systems to do so. The descriptions contained in this document relate both to the system used by the Issuer to manage the Mint or Burn of Tokens as well as the system it may use to hedge any exposure of the Issuer resulting from the issuance of the Tokens.

Tokens are expected to be available on various exchanges. The descriptions set out below relate only to the Mint and Burn of Tokens by Authorized Users of the Issuers online order system - the Jasper Token Manager. Please be sure to read the terms and conditions for the tokens as well as the terms of use for Jasper prior to using this system.

In implementing the Tokens, the Issuer uses a proprietary system known as Jasper which consists of the Jasper Token Manager, through which Authorized Users place Mint and Burn requests, the Jasper Trading Engine which the Issuer may use to hedge its own exposures and the Oracle which acts as a data store and bridge between the different parts of Jasper and any on and off chain transactions. To the extent it chooses to hedge its exposure, the Issuer will use off-chain Exchanges, OTC Trading Desks and Lending Desks through opening short and long positions and pegging crypto exposure to the Tokens.



## Token Mint and Burn

A token holder can gain access to the Tokens in one of two ways:

1. Purchase on an exchange or
2. Directly participate in the Issuer's MINT and BURN process through the Jasper Token Manager.

## Market Makers

All market makers looking to MINT and BURN Tokens must complete anti-money laundering and know your client checks themselves through the Jasper Token Manager. Once these checks are complete, an Ethereum address corresponding to an authorized account will be approved by the Issuer, through the Jasper Token Manager. Whitelisted addresses will be stored in a key, value mapping on the Ethereum blockchain, allowing for quick verification.

## Mint and Burn

Once an address is whitelisted, it may take part in the mint/burn process of Tokens. The two entities involved in the mint and burn workflow, are the Jasper Token Manager and when the Issuer is hedging its exposure, the Jasper Trading Engine. An oracle server (i.e. a highly secure data relayer) is used to bridge communication between the Jasper Trading Engine and the Jasper Token Manager.

The steps involved in MINT and BURN processes are illustrated below.

### MINT

1. KYC'd Authorised User (*AU*) sends stablecoin to the Issuer.
2. The Oracle reads the MINT request and initiates an order at the Jasper Trading Engine (*JTE*) on behalf of the Issuer.
3. *JTE* short sells a dollar-equivalent amount of crypto on spot markets.
4. The Jasper Token Manager mints an equivalent number of Tokens.

### BURN

1. Authorised User (*AU*) sends Tokens to the Issuer.
2. The Oracle reads the BURN request and initiates an order at the Jasper Trading Engine on behalf of the Issuer.
3. Jasper Trading Engine buys the appropriate value of crypto and repays the crypto-denominated loan.
4. The Jasper Token Manager transfers stablecoin from the Issuer to the *AU* and burns the previously sent Tokens.

# Exposure and Daily Rebalance

In order to mitigate the Token’s value from eroding with crypto price swings and under/over-leveraging itself, we implement a Daily Rebalance and Threshold Rebalance mechanism to ensure a peg between the Token Value and the relevant Reference Asset.

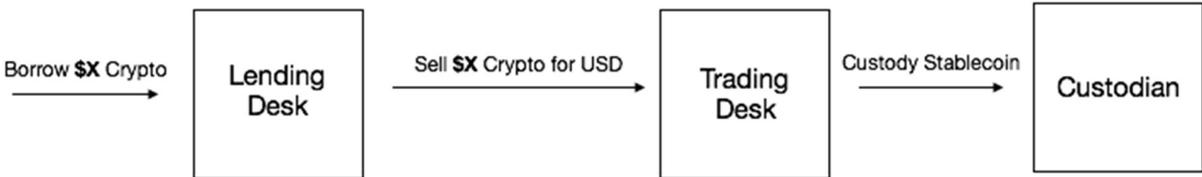
## Rebalancing

When the Issuer its hedging this exposure, then during a rebalance the Jasper Trading Engine will engage in one of two actions: (i) increase exposure or (ii) decrease exposure.

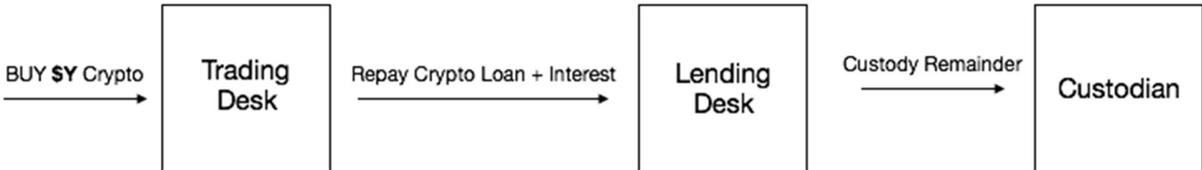
For -1x Tokens:

When the dollar denominated spot price of the crypto increases, the Jasper Trading Engine decreases short exposure by repaying a portion of the outstanding loan. Similarly, as the spot price decreases, the Jasper Trading Engine increases short exposure by increasing the loan position. These workflows are illustrated below.

### Increase Short Exposure



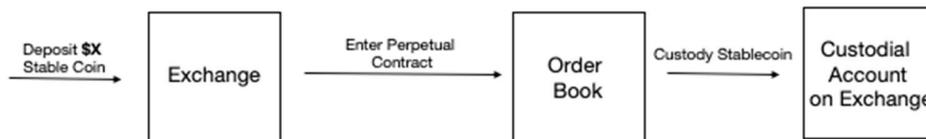
### Reduce Short Exposure



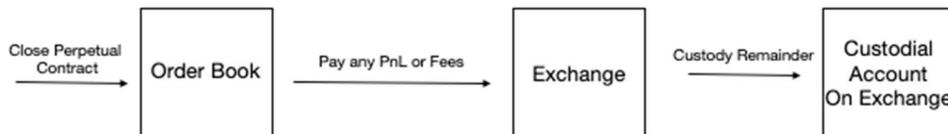
For Leveraged Tokens:

In a 3x Leveraged Product, when the dollar denominated price of the crypto increases, the Jasper Trading Engine increases exposure by increasing the notional of the perpetual contracts. Similarly, as the spot price decreases, the Jasper Trading Engine decreases exposure by decreasing the notional of the perpetual contracts. These workflows are illustrated below.

### Increase Leveraged Exposure



### Reduce Leveraged Exposure



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## Daily and Threshold Rebalance

A rebalance will be ordered by the Jasper Trading Engine during two events: 1) starting at 5pm CET during a Daily Rebalance or 2) a price change in the relevant Reference Asset of 30% within a 24hr period for -1x Tokens or 15% for Leveraged Tokens, i.e. a Threshold Rebalance. Both rebalance types follow similar workflows, as detailed below:

1. Jasper Trading Engine listens for the Time or a Threshold Price to be reached.
2. Jasper Trading Engine reads the Crypto Price Feed and decides to either increase or decrease exposure.
3. Jasper Trading Engine executes the rebalance function on the Jasper Token Manager (on the Ethereum Blockchain) to reflect the rebalanced value of the Tokens.

# Fees

There are two types of fee associated with the Tokens:

Mint and Burn Fee: Charged on each MINT OR BURN order initiated by an Authorized User.

Fees deducted from the value of the Tokens each day:

1. **Leverage Fee:** A daily rate accrued on the outstanding value of the Tokens collected during a daily rebalance and reducing a holder's notional exposure. In Leveraged Tokens this appears as a Funding Rate Fee
2. **Maintenance Fee:** An annual maintenance fee collected each day during the daily rebalance.

# Smart Contract User Roles

The Token Smart Contract System designates four classes of users that are allowed to interact with the Token feature set. The roles and their responsibilities are as follows:

1. **Contract Owner:** Able to upgrade, update, and shutdown the Token Smart Contract System.
2. **Issuer:** Approves minting/burning of Tokens, initiates rebalances, and adjusts the holdings
3. **Authorised User:** Whitelisted address to MINT or BURN Tokens for stablecoin.
4. **HODLER:** Token holder without the ability to directly MINT or BURN within the Smart Contract System.

These user roles are subject to change as upgrades are initiated by the Contract Owner. While the Issuer is currently Amun, the contract has been designed to work for a range of issuers and any issuer may choose to hedge their exposure directly or appoint a third party to do so on their behalf.