

Hello Aave community,

I'm Sasha Ivanov, founder of the Waves protocol and co-creator of the Neutrino protocol.

Rational

I would like to suggest adding support for Neutrino USD (USDN) on Aave as a collateral asset. The addition of USDN as an asset for lending and borrowing would create new lucrative options for Aave users, especially those interested in earning on stable assets. USDN is one of the few stable coins with auto-staking, that is it provides a native APY to its holders. Therefore using USDN on AAVE as an asset you can borrow would create arbitrage opportunities and should be beneficial for the AAVE TVL.

What is USDN

Neutrino USD (USDN) is an algorithmic multi-chain stablecoin pegged to the US dollar and backed by WAVES. Leveraging the staking model of the Waves protocol's underlying consensus algorithm, USDN staking yields a sustainable reward of up to ~10% APY.

The core numbers:

- Date of deployment: November 2019 (on Waves), October 2020 (ERC20), June 2020 (BCS)
- \$750,000,000+** is the total value locked (TVL) in the Neutrino smart contract in dollar terms
- Variable collateralization ratio in the range of 150-250%
- \$45,000,000+** is daily [trade volume](#) on various exchanges
- \$560,000,000+** is total liquidity on [Curve.fi 3Pool](#)
- \$400,000,000+ is total market capitalization, making USDN a top 11 stablecoin and a top 5 algorithmic stablecoin on the market
- Number of transactions: on Ethereum [36,089](#), on Waves 771317
- Number of holders: on Ethereum [1,174](#), on Waves [31914](#)

The main feature of USDN is staking and generating rewards from the locked underlying asset (WAVES).

Why would it be a good asset for borrowing or collateral

?

- More profitable DeFi strategies (including arbitrage and leverage trading) will be available thanks to integrations and partnerships with Curve, 1inch, Uniswap, SushiSwap, YearnFinance, Ellipsis
- USDN is a stakable asset (and auto-staked by default with a ~10% APY), so it's wrapped aUSDN version will be even more interesting for users and we expect more liquidity & volumes for aUSDN too.
- More users coming from the Neutrino and Waves communities.

Token (& protocol) permissions (minting) and upgradability

The USDN contract is not upgradable. Minting is possible only by exchanging \$1 worth Waves to 1 USDN on the smart contract.

Emission schedule

There is no emission schedule. \$1 in WAVES can be swapped for 1 USDN, and vice versa at any moment.

How is the asset currently used?

USDN can be used in most dApps, including Curve, Ellipsis, Yearn, Uniswap, SushiSwap, as well as on Waves applications, such as Waves.Exchange and [Swop.fi](#).

A Stress tests

USDN is permanently pegged to USD, as a corresponding amount in WAVES is locked in the smart contract as collateral (currently collateralization is 155%). Two recent occurrences when USDN was depegged from USD in Curve's USDN-3CRV pool only proved the stability of the 1 to 1 peg, as they created opportunities for arbitrage traders whose activities, in turn, led to the restoration of the 1 to 1 peg.

Risks

USDN Smart contract Risk: C+

Initially, USDN was represented by a set of five interacting smart contracts written in the programming language Ride and deployed to Waves blockchain, launched in November 2019. The Waves smart contracts underwent a security audit by the Beosin security agency. Since then, USDN has been extended via its cross-chain capabilities onto Ethereum and Binance Smart Chain. The porting of USDN to other ecosystems is an example of advantages of cross-chain capacity of the Neutrino protocol. However, this also increases the overall complexity of the system, making security audits a more demanding task. The Ethereum USDN contracts are more recent and have fewer transactions in comparison with the Waves-based token.

USDN Counterparty Risk: B-

USDN is an open-source decentralized stablecoin supported by the Waves Association, a non-profit organization with an outstanding track record, and developed by a decentralized cohort of development teams. To ensure that USDN is properly priced within various DeFi protocols, including money markets, synthetic assets and insurance coverage solutions, ChainLink price feed for USDN is already available. With a centralization risk of C+ and trust risk B, this evaluation yields an average of B- for the counterparty risk.

USDN Market Risk: B

At the time of writing, USDN is the world's 11th biggest stablecoin. The total market capitalization of USDN has reached \$400 mln MC. Liquidity is provided on DEXes, such as Uniswap, Curve, 1inch and on a number of leading crypto exchanges with an average daily volume of \$35 mln and an impeccable record of price stability that sustained multiple price dumps. In the event of substantial market instability, the so-called emergency oracles of the Neutrino system can unilaterally trigger an emergency shutdown of the smart contract operation. To further stabilize the tokenomics of USDN, the Neutrino system includes the so-called Neutrino Token (or Neutrino System Base Token - NSBT) which ensures stability of reserves on the Neutrino smart contract and is used for protocol governance. For the entire period of existence, USDN has been growing steadily, including the amount of collateralized USDN, the amount of WAVES locked in the smart contract, while NSBT seamlessly supported and complemented this system.

Contract addresses:

[USDN ERC-20](#)

[USDN Waves](#)

[USDN BCS](#)

References:

[Website](#)

[White paper](#)

[Twitter](#)

[Telegram](#)

[GitHub](#)

Security audit by [Beosin](#)