



Africa Stable-Coin (ABCD): A stable crypto version of the Nigerian Naira for holding, trading and spending.

ABCD Collective. Created by Bitsika (Binance Labs, 2019).

<https://abcd.africa>

info@abcd.africa

Abstract. The Africa Stable-Coin (ABCD) is a cryptographic token that is (i) issued by a trust company, ABCD Collective, (ii) strictly pegged 1:1 to a real world asset, fiat currency (Nigerian Naira), and (iii) built on the Binance Chain network [1], a Byzantine Fault Tolerant and Proof of Stake consensus network, via its token issuance model. The Africa Stable-Coin (ABCD) combines the Naira's liquidity, Africa's largest economy, and Nigeria's high population [2]; with the technological advances in cryptocurrency. As a Binance Chain token, ABCD can be transferred on the Binance Chain. Africa Stable-Coins (ABCD) are created at the time of withdrawal from ABCD Collective and redeemed or "destroyed" at the time of deposit back.

1. Introduction

Fiat Naira transactions face numerous challenges such as; frequent down times, management costs, and daily amount limits. These are all problems Africa Stable-Coin (ABCD) solves on a decentralized global scale.

In 2018, Nigeria had the 5th largest LocalBitcoins transaction volume in the world [3]. With ABCD pegged to the Nigerian Naira, we are providing a stable hedge against crypto volatility for African traders, exchanges, and merchants. Enabling Nigerians and foreigners alike to trade cheaply on local and major exchanges in a familiar currency (Nigerian Naira).

Stable-Coins

Since the introduction of Bitcoin [4] in 2008 and the subsequent creation of thousands of other crypto assets, markets for trading these assets have sprouted up all over the world.

Stable-Coins [5] are cryptocurrencies designed to maintain a stable value. Where cryptocurrencies like bitcoin are known for their price volatility, the aim of a Stable-Coin is to maintain a consistent and predictable level of purchasing power. Stable-Coins provide a fiat on-ramp into these vibrant markets. New entrants can swap their fiat currencies for Stable-Coins before trading on crypto-only exchanges. Given the inherent market volatility, Stable-Coins also provide participants with the ability to fluidly exit their crypto asset positions in times of downward price swings, and move their fiat assets across exchanges within seconds to pursue cross-exchange arbitrage strategies.

Today, Stable-Coins play a critical role within crypto asset markets by serving as a fiat on-ramp for participants. Moving forward, Stable-Coins will continue to play a major role in re-architecting the financial system using blockchain technology, and will serve as a truly global, borderless money.

Africa Stable-Coin

Trading the multitudes of cryptocurrencies that exist has been challenging in a country like Nigeria, as the international exchanges that market them have limited trust in the legacy financial system in Nigeria. However, with ABCD Nigerians (and other Africans) can trade directly on international exchanges like Binance. Binance has already created a fiat Nigerian Naira (NGN) trading pair [6] and is already building the gateway for greater cryptocurrency exposure for Nigerians. Like a handshake, the decentralized global nature of ABCD enables the increase of crypto liquidity in Nigeria by allowing foreigners to actively participate in the Nigerian crypto economy via ABCD.

ABCD's reduction of price volatility when interacting with cryptocurrencies provides greater flexibility of use with limited restrictions from legacy financial infrastructure via lower transaction costs, increased reliability, and speed of transactions. The local financial legacy services are extremely expensive for retailers, especially Millennials and Gen Zs, who account for 75% of Nigeria's teeming population [2] (half the population of the USA). Having a stable version of the fiat currency (Nigerian Naira) with negligible costs compared to existing legacy fees such as service fees, ATM fees, transfer fees, etc., increases volume and liquidity across the ABCD network, with the additional benefit of securing user's trust over time. Africa Stable-Coin (ABCD) provides a better medium of exchange and unit of account (2 of the 3 functions of money) in a trustless manner, at a fraction of legacy financial costs. In short, a good alternative to fiat Naira for spending and trading.

2. Collective

Building an operational Stable-Coin is equally a trust problem as it is a technically challenging one. Even though Bitcoin [5] built a system of cryptographic proofs instead of 3rd party proofs, a fiat-pegged Stable-Coin requires the integration of both due to the reliance on a centralized fiat asset issuer.

Maintaining a functioning system partly based on trust requires audits. For Stable-Coins we consider the issuer to be capable of providing the services they are entrusted in offering, by openly verifying the management structure, supply mechanism, supply schedule, volume (including destroyed supply) as though it were itself on an open decentralized network, for the sake of ensuring it's integrity and building market confidence.

The ABCD Collective

Instead of centralizing trust in one company, Bit Sika [7] created the 'ABCD Collective', with Bit Sika (founding partner) and Linova Capital (financial partner) [8]. The ABCD Collective is an independent entity that will oversee the rules for the issuance and redemption of ABCD and will ensure that escrows are always backed 1:1. To further instill trust, ABCD fiat escrows are audited on a monthly basis by an independent Certified Public Accountant.

The token is supported by many other exchanges [9] in the ecosystem. From the onset, we will seek the support of many top Nigerian exchanges. Bit Sika and Linova Capital are the initial members of the ABCD Collective and the first issuers of ABCD. In the future, we expect to onboard additional members and integrate more fiat currencies to form a basket of diversified national currencies for added stability in backing of the Africa Stable-Coin ABCD.

Fiat Escrow Backing

While some Stable-Coins use complex algorithms to maintain stability and others are backed by cryptocurrencies, "fiat-backed" Stable-Coins take the most straightforward approach. This is the method employed by the ABCD Collective. As the name suggests, fiat-backed Stable-Coins are pegged with a 1:1 ratio to a fiat currency of choice. For every ABCD that is issued, there is a corresponding fiat currency (Nigerian Naira) to back its value. At any given time, 1 ABCD can be redeemed for 1 fiat currency (Nigerian Naira).

The quantity of issued tokens in circulation can be observed via the underlying hash based timestamp network. However, verifying the underlying fiat currency balance requires examination by a trusted third party. For assurance, the Audit Committee of the ABCD Collective works with a public accounting firm to regularly examine and publish, on a monthly basis, the balance of the underlying fiat currency

(Nigerian Naira) in escrow. The audits will comprise of reports of issued, circulated, and burnt tokens and be made available to the public.

Creation and Redemption

Promoting usability and encouraging adoption requires an accessible and simple mechanism for creation and redemption. ABCD achieves this by allowing holders to acquire and liquidate Africa Stable-Coins (ABCD) on BitSika and partner exchanges. ABCDs are created and burnt based on demand and supply via escrow accounts and Binance chain Owner address of the collective.

ABCD holders may exchange fiat currency (Nigerian Naira) for ABCD at a 1:1 exchange rate by initiating a withdrawal of ABCD from their Bit Sika or Exchange accounts to any Binance Chain address they specify. The fiat currency (Nigerian Naira) amount of ABCD is debited from a holder's Bit Sika or Exchange account balance at the time of withdrawal. ABCDs are liquidated or "destroyed" at the time of deposit into the Bit Sika or exchange platforms. Bit Sika or exchange users may exchange ABCD for fiat currency (Nigerian Naira) at a 1:1 exchange rate by depositing ABCD into their Bit Sika or exchange account. The fiat currency (Nigerian Naira) amount of ABCD is credited to a holder's Bit Sika or exchange account balance at the time of deposit. Excess ABCD tokens are burnt and the corresponding escrow backing is freed.

3. Beneficiaries of ABCD

Exchanges, individuals, and merchants are the primary beneficiaries of ABCD. They transact with it for the primary reason of maintaining a volatile-free stable cryptocurrency that enables navigation within the crypto economy where volatility leads to inadvertent swings in the value of the assets they hold.

Exchanges have a difficult time accepting fiat deposits and withdrawals using legacy centralised financial systems. This is due to its complex and complicated nature by being risky, slow, and expensive.

Problems:

- > Working with various payment providers with varying policies towards dealing with transaction reversals, fraud protection, high fees, minimum amounts, etc.
- > Technically botched financial systems that lack APIs, reliable service, poor security, and unreliable transaction processing; that reflect upon the exchange.
- > Limiting currency conversion with high cost and long periods of wire transfers.

Solutions:

- Provide Africa Stable-Coin (ABCD) to exchanges as a stable store of value for users to make safe deposits and withdrawals.
- By using a familiar underlying fiat currency (Nigerian Naira), benefits accrue towards adoption and a seamless user experience.
- Mitigating existing fiat custodial risk by outsourcing to the ABCD Collective.
- Providing various trading pairs of ABCD introduces more options for asset accessibility to traders (especially pairs with APIs to Decentralized Exchanges like Binance DEX).

Individuals in Nigeria's crypto space vary in several ways. There are traders aiming to gain profits on a daily basis; from HODLers looking to hedge against downside risks, to those focusing on long term secured holdings, to remittance payment makers looking for cheaper options, all the way to developers building crypto infrastructure and several other innovative and not yet imagined applications. For all, ABCD empowers their use cases by:

- Moving Stable-Coin fiat in and out of exchanges seamlessly.
- Reducing cryptocurrency dependence from the legacy financial system.
- Simply enhance platforms using existing cryptocurrencies to support ABCD.
- Securely storing ABCD through one's private keys without resorting to the use of legacy 3rd party custodian services.

Merchants in Nigeria have long been suffering from unreliable payments. In 2016, more than 70% of all digital payments failed. Even worse is the seeding of mistrust between the merchants and customers, harming trust in the system in the long term. Here are a few benefits for merchants using Africa Stable-Coin (ABCD):

- Pricing goods in a recognisable unit of account (Nigerian Naira) which backs ABCD.
- Removes costs throughout the currency conversion process when transacting Bitcoin or other non-stable cryptocurrencies.
- Reducing fees, preventing unwarranted chargebacks, eliminating 3rd party legacy financial risk.
- Providing innovative offers to customers through micro tipping, gift cards, discounts, and more.

4. Technology

A digital token backed by fiat currency allows its users to make transfers in a familiar accounting unit in a direct peer-to-peer process. This works in a consensus network where the transactions are performed on a verifiable hashed based timestamp chain. The network's decentralized consensus ensures continuous trusted transactions are processed. For us to ensure stability in this token's value and supply, ABCD will run on the Binance Chain. This will be where the ABCD token will be issued and destroyed. The ABCD Collective will ensure 3rd party audited processing of the token. The Collective's Audit Committee will transact tokens. The transactions will be balanced based on demand from customer purchases on the Bit Sika platform and partner exchanges.

Binance Chain Consensus Network

Binance Chain consensus uses Byzantine Fault Tolerance and Proof of Stake (PoS). The consensus mechanism produces blocks through a series of qualified Validators. This is similar to the architecture of several existing popular blockchain platforms such as Cosmos and NEO.

Binance Chain's underlying currency is the Binance Coin (BNB). This is the currency in paying fees for transactions made on the Binance Blockchain. Cryptocurrency projects can issue tokens on the Binance Chain. This is done by paying BNB to ensure commitment of projects. On making the payment, the project can: (i) Issue new tokens, (ii) send, receive, burn/mint and freeze/unfreeze tokens, (iii) propose to create trading pairs between two different tokens, (iv) send orders to buy or sell assets through trading pairs created on the chain.

Binance Chain was created to ensure high performance. This is achieved through low latency, high throughput for a large user base, and high liquidity trading. The blocks in the chain achieve 1 second block times, with 1 confirmation finality. Being a decentralized consensus network, no validators maintain custody of funds, issuers and traders maintain control of their private keys and funds. Binance Chain offers low cost in both liquidity and fees (even cheaper than the Binance.com exchange).

Binance Chain Vs Ethereum Network

The core focus of Binance Chain is to be a fast and reliable settlement layer. Binance Chain allows the easy and fast creation of digital tokens and the integration

of different tokens. Ethereum and its Turing complete programming languages like Solidity and Vyper allow Ethereum Developers to create all kinds of smart contracts, but the drawback is that the Ethereum chain becomes slow, needs large amounts of memory and is currently facing challenges scaling.

Exchanges & Wallets

Stable-Coins running on decentralized consensus hash based timestamped networks are cryptocurrencies by nature. This grants the Stable-Coins the ability to enable public key cryptography signatures that transfer the Stable-Coin's ownership between the payer and payee. For Africa Stable-Coin (ABCD), it relies on the Binance Chain to enable cryptographic signatures of transaction.

Wallets and exchanges work on the Binance Chain to provide the ability for ABCD to be in full control of the key holders. This gives several options for users to integrate multisig, tss and equip hardware and paper wallets. Your keys, your ABCD.

Fees

Through Bit Sika and partner exchanges, we have a 0.1% fee charge on each amount of fiat (Nigerian Naira) to ABCD that users create or burn. Fee structure may be improved as ABCD keeps evolving in order to maintain stability and functionality. We built this token to improve the local crypto community's liquidity. This brings greater trading options to Nigeria and the African crypto community.

5. Future Innovations

- Fiat currency side chain.
- Decentralized Proof of Escrow.
- Future Stable-Coins for other African fiat currencies.
- Decentralized applications running fiat currencies (Nigerian Naira).

6. Conclusion

Stable-Coins like ABCD will provide a bridge from the legacy system to the decentralized functional system. As the adoption of Stable-Coins grows,

opportunities will be created that enable hundreds of millions, and eventually billions, of people to join the developing open, global, borderless public decentralized financial system. We have proposed a Stable-Coin, ABCD to safeguard against price volatility in crypto. ABCD is pegged 1:1 to a real world asset fiat currency (Nigerian Naira). Through the ABCD Collective, ABCD Stable-Coins will be issued and the balance accounted for via 3rd party audits. ABCD will provide an equally important hybrid structure of both decentralized issuance via the Binance Chain, and periodic 3rd party audit of the escrow asset.

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