



flexUSD

The world's first interest-earning stablecoin

Whitepaper

Contents

01

Overview

4.
 - Introduction
 - What is flexUSD?
5.
 - Why was flexUSD created?
 - flexUSD Flow of Funds
6.
 - flexUSD Reserves and Backing
 - flexUSD Use Cases
7.
 - flexUSD Minting and Redeeming
 - Risks
 - Third-party Attestation

02

Technology

9.
 - Yield Creation and Distribution
 - Cross-chain Capabilities
 - On-chain and Off-chain Support
 - API Integration

03

Roadmap

11.
 - Multi-collateral Support
 - Cross-chain Functionality
 - DeFi Use Cases

01

Overview

FLEXUSD WHITEPAPER



Introduction

In 2008, Satoshi Nakamoto introduced the world to cryptocurrency. Satoshi had a vision to build the first decentralized, peer-to-peer electronic cash system—and thus, BTC was born. Over the past decade, crypto has grown beyond this singular Bitcoin network into a thriving ecosystem consisting of innumerable digital assets and blockchain solutions, with a cumulative USD market cap numbering in the trillions.

One of the greatest innovations in the crypto space has been the advent of stablecoins. Essentially digitized tokens pegged to the price of reserve assets such as USD, stablecoins hit the mainstream in early 2014 with the likes of BitUSD, NuBits, and Tether (USDT). Stablecoins such as USDT and USDC brought forth real cryptocurrency utility by removing the price volatility inherent to Bitcoin and many other digital assets, whilst being collateralized by fiat currency, crypto, or various commodities. The result was a quick, reliable, and low-cost instrument that could be used for global, peer-to-peer trade around the clock.

As of today, stablecoins have a collective market capitalization of roughly \$188+ billion USD. The most popular stablecoin in the world (USDT) is currently the third largest cryptocurrency by total market cap, trailing only Bitcoin and Ethereum respectively. We believe that CoinFLEX has the ability to penetrate this market with a newer, more capital-efficient stablecoin offering—flexUSD.

CoinFLEX welcomes innovation, and our approach to stablecoins exemplifies that belief. In this whitepaper, we will be discussing how the newest iteration of stablecoins—specifically flexUSD—will further increase the capital efficiency and utility of crypto markets.

What is flexUSD?

flexUSD is a next-generation stablecoin that is fully-backed, independently verified, and capable of paying out interest on-chain every 8 hours. No staking or lockups required. The token is pegged to the US Dollar and redeemable 1:1 for USDC at any time.

The design of flexUSD was inspired by the challenges we saw arising from accelerated cryptocurrency adoption in recent years. As a rapidly growing exchange, CoinFLEX.com* has a front-row seat to the changes impacting the market structure of crypto derivatives. A growing concern among traders has been the perpetual scarcity of dollars and consequently, the high funding rates (i.e. borrowing costs) present when trading perpetual swaps and dated futures.

flexUSD takes advantage of the large demand for institutional levels of leverage and scarcity of dollars in crypto markets by earning funding rates from traders on the CoinFLEX exchange. As flexUSD lends into our peer-to-peer borrow and lending market (the first repo market in the crypto space), these compounding daily interest amounts can be paid out to users 3 times per day.

How does flexUSD differ from other stablecoins?

Other stablecoin issuers pay holders zero interest. To earn yield or interest on your stablecoins you need to put them to work by lending them directly to a third-party platform, yield farming or using the stablecoins as collateral to trade derivatives products.

**CoinFLEX.com is not available to US residents, including CoinFLEX US users.*

Why was flexUSD created?

CoinFLEX.com is the first crypto exchange to create a peer-to-peer repo (repurchasing) market for borrowers and lenders. Traditional repo markets trade approximately \$2-4 trillion dollars in volume per day. If you've never heard of it, that's most likely because large financial institutions such as banks are the primary participants in the repo market, as opposed to retail.

There are two different ways to visualize crypto repo markets. The first is akin to a spread between deliverable perpetual futures and spot: buying the spread involves buying spot and shorting deliverable perpetual futures, whereas selling the spread involves selling spot and longing deliverable perpetual futures. The second is as a borrow/lend market, which connects dollar lenders (repo buyers) with crypto collateralized borrowers (repo sellers). Repo sellers receive USDC in exchange for their coins, and retain their crypto exposure via the deliverable long perpetual futures leg.

This structure allows for a number of traders to come together and do business. The universe of repo participants includes basis traders (arbitraging or speculating on the difference between a perpetual future and spot), lenders, borrowers, cross-exchange arbitrageurs, and every day spot and deliverable perpetual futures traders matching with orders that are implied into spot and perpetuals through repo.

Many of these activities are challenging to manage manually, so we created flexUSD. The latter can be seen as either an automated basis arbitrageur or USDC lender, acting to tokenize these market opportunities and provide yield to holders natively on-chain. flexUSD is the perfect example of a complicated process made simple through tokenization.

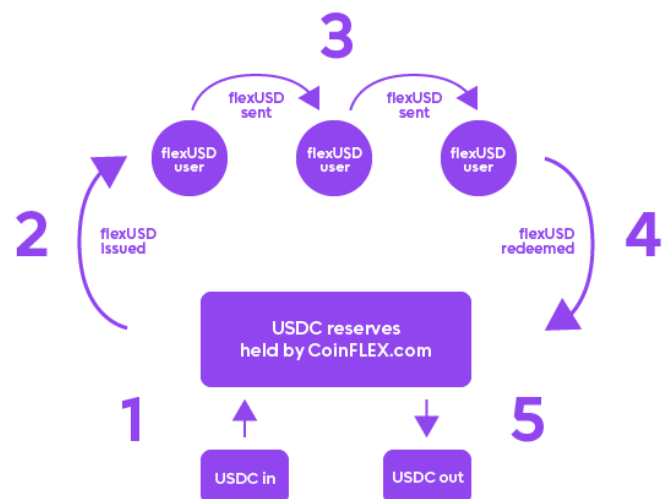
How is flexUSD backed?

flexUSD is backed by USDC and assets in CoinFLEX's repo markets. These asset reserves are verified and attested to by a US auditing firm (Armanino) every 8 hours, three times a day.

flexUSD flow of funds

Diagram of what happens when flexUSD is minted and yield is earned.

- 1. User mints flexUSD with 1 USDC**
 - 1 flexUSD is created.
- 2. 1 USDC is moved to a CoinFLEX controlled account**
 - Gets deployed into repo markets.
 - Gets yield from deploying into repo markets.
- 3. Yield is distributed to user**
 - EVM: done via rebalancing (change of balance on chain).
 - Non-EVM: done via transactions to holders of ≥ 10 flexUSD (so yield is sent to these wallets).



What happens with the USDC that is used to mint flexUSD?

USDC used to mint flexUSD is added to the pool of capital being managed by the flexUSD protocol. The protocol deploys USDC into CoinFLEX's repo (borrow/lend) markets to earn competitive yields.

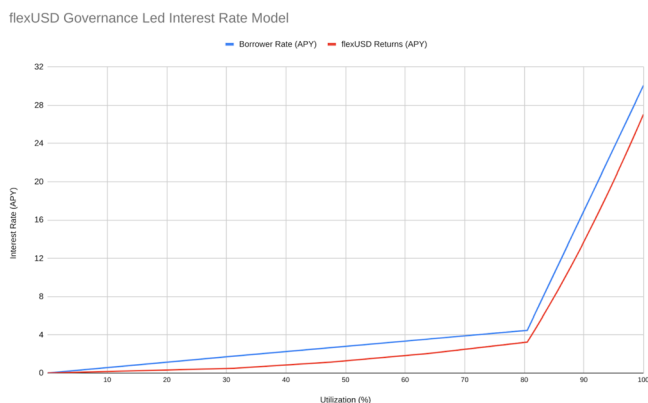
How does the flexUSD protocol work?

The flexUSD protocol sets borrowing rates proportional to the demand for dollars in each repo market. Meaning, the higher the demand for dollars, the higher the borrowing rate commanded.

flexUSD places bids across all listed repo markets following a governance-controlled interest rate model. The interest rate model has two components. First, each repo market is allocated a variable number of dollars depending on the notional amount of outstanding perpetual futures deliveries (requests to convert a perpetual futures contract into spot). Second, 0.25% of the protocol's capital is split evenly between each repo market. The resulting formula is as follows:

$$\text{allocation} = 0.9975 * (\text{deliveries} / \text{total_deliveries}) + 0.0025 / \text{number_of_repo_markets}$$

Then, each allocation is split into a series of bids depending on the "utilization rate" seen in each respective market.



Fully-collateralized USDC borrowers, who borrow from the flexUSD protocol, pay interest hourly. Since the amount of interest paid is set by the supply and demand for dollars, the flexUSD protocol earns a floating rate every hour.

90% of the interest earnings are paid out every 8 hours to flexUSD holders, 10% is retained by CoinFLEX as commission.

Did we mention?

You don't have to hold flexUSD on CoinFLEX to earn interest. You can hold flexUSD almost anywhere, including wallets like MetaMask and Trust Wallet, inside DeFi liquidity pools, and even in cold storage. The best part? You'll still earn interest every 8 hours.

Use Cases

flexUSD is for everyone, regardless of whether you're a new crypto investor, HODLer, or active trader. It allows users to earn interest passively, participate in crypto without being exposed to market volatility, and more importantly—make the most out of their dollars and stablecoins.

The versatility of flexUSD benefits the vast majority of users, regardless of differing risk profiles and goals.

Crypto Newcomers

flexUSD is an ideal product for anyone on-ramping into the crypto ecosystem looking to participate in yield-generating opportunities without exposing themselves to market volatility. Holding flexUSD allows users to earn passive income in their crypto portfolio every 8 hours, regardless of whether the market is up or down.

Crypto Traders

In addition to maintaining 100% LTV when being used as collateral, flexUSD allows users to trade spot on CoinFLEX.US, as the pairs are denominated in flexUSD. By doing so, users are able to earn yield while trading spot with zero fees.

Institutions

Institutions may provide clients with staking solutions by converting their US Dollar or Stablecoin inventory into flexUSD, allowing them to earn yield while retaining full usability and spendability of their cash.

Corporations

Tokenizing dollars into stablecoins makes them transferable across the globe in a matter of seconds rather than days, which is typical of wire transfers. This, combined with the fact that flexUSD pays interest natively, can dramatically increase the profits of multinational corporations through access to increased capital efficiency alongside access to yield.

How do I mint flexUSD?

You can mint flexUSD at anytime by visiting CoinFLEX.US/flexassets and following these steps:

1. Select the 'Mint' tab.
2. Enter the amount of USDC you want to use to mint flexUSD (1:1 with no fees).
3. Click confirm.

Next interest payment : 00:00:00 7-day Average APY: 5.52%

2. MAX USD ▾

Avbl→USD | Min Mint: 10 USD

You will receive: flexUSD ▾

Once minted, flexAssets can be redeemed 1 to 1 at any time

3. Confirm

How do I redeem flexUSD?

There are two ways to redeem flexUSD for USDC:

1. With no fees, but with up to an 8 hour wait.
2. With a small fee, but immediate settlement.

To redeem visit CoinFLEX.US/flexassets and:

1. Select the 'Redeem' tab.
2. Enter the amount of flexUSD you want to redeem for USDC.
3. Choose when you want to receive the USDC, at the next payment period or immediately.
 - a. To receive the USDC immediately click on the drop down menu and select 'immediate redemption' for a small fee.
4. Click confirm.

Mint 1. Redeem

You can convert: -- flexUSD

2. MAX flexUSD ▾

Min convert: 0.01 flexUSD

You will receive: 3. At UTC 12 pm (00:06:58) ▾

100 USDC

4. Confirm

What are the fees?

There is no fee to **mint** flexUSD.

Free **redemptions** can be requested at any time and are processed 3 times a day (12 noon UTC, 8pm UTC and 4am UTC). Instant redemptions are done on the spot and cost 2 rounds of flexUSD interest payments.

Risks

1. Circle counterparty risk: flexUSD is backed with USDC, therefore, flexUSD inherits Circle counterparty risk.
2. CoinFLEX counterparty risk: The borrow/lending markets (repo markets) in which flexUSD capital participates are overcollateralized. Risks stem from CoinFLEX.com's ability to liquidate under-margined loans, as well as under-margined traders and speculators.
3. Smart contract risk: This is relatively low because of the simplicity of the smart contract logic and infrastructure.

Third-party Attestation

flexUSD is independently verified by the US auditing firm Armanino, who publishes attestations of flexUSD reserves three times a day.

CoinFLEX engaged Armanino LLP, a public accounting firm, to perform an attest engagement under standards set forth by the American Institute for Certified Public Accountants (AICPA) and to issue an Independent Accountant's Report on Agreed Upon Procedures (AUP). The attest report includes the results of specific procedures performed by Armanino as well as Armanino's findings.

Armanino LLP (www.armaninolp.com) is one of the 25 largest independent accounting and business consulting firms in the US. Armanino provides an integrated set of audit, tax, business management, consulting and technology solutions to companies in the U.S. and across the globe.

Since 2014, Armanino has provided a wide range of business solutions to the cryptocurrency and digital assets industry. Along with providing 'traditional' CPA services, Armanino launched TrustExplorer (a set of transparency tools) to enhance trust and adoption within the industry.

[Learn more about TrustExplorer here](#)

02

Technology



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Yield Creation and Distribution

flexUSD generates yield by lending USDC to coin-collateralized borrowers. These borrowers pay interest hourly, according to a funding rate dependent on the supply and demand for USDC, which fluctuates with market conditions.

Can flexUSD yields become negative?

No, flexUSD yield is never negative because it captures the basis difference between the perpetual futures (perp) and spot markets regardless of market direction. It is only when the funding rate in the perp market reaches 0% that flexUSD does not earn yield (i.e. if crypto is in a prolonged bear market).

flexUSD APYs may be lower in downtrending markets due to decreased demand for perps, thus decreasing the funding rate and therefore the amount of yield paid out to flexUSD holders.

Yield is distributed in two ways:

For EVM-compatible chains, the flexUSD smart contract implements a rebasing function where balances under all wallet addresses holding flexUSD are updated with a single call corresponding to the interest distributed during that payment window.

For UTXO chains such as BCH (SLP), flexUSD interest payments are distributed with transactions to each address holding at least 10 flexUSD.

Cross-Chain Capabilities

flexUSD is an ERC20 token (Ethereum), SLP token (Simple Ledger Protocol on the BCH Network) & a SEP20 token (smartBCH). We will soon be adding flexUSD across many other chains as we want the tokens to be chain agnostic (e.g. Avalanche, Fantom, Binance Smart Chain, Polygon, etc).

What are the token addresses?

Ethereum (ERC20)

0xa774FFB4AF6B0A91331C084E1ae
bAE6Ad535e6F3

Bitcoin Cash (SLP)

dd21be4532d93661e8ffe16db6535af
0fb8ee1344d1fef81a193e2b4cfa9fbc9

Bitcoin Cash (SEP20)

0x7b2B3C5308ab5b2a1d9a94d20D35
CCDf61e05b72

Hot and Cold Storage Support

flexUSD has the unique ability to pay yield even when your tokens are in cold storage. As all transactions are on-chain yield (rebasing for EVM and transactions for non EVM), you do not need to worry how or where your tokens are stored; they will always receive yield payments.

API Integration

The flexUSD API documentation includes information about how to mint and redeem flexUSD on CoinFLEX.US and pull historical data on your transactions.

[Learn more about the API here](#)

03

Roadmap

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Roadmap

Multicollateral

The ultimate goal of flexUSD is to become the preferred stablecoin asset in crypto through the powerful combination of stability and on-chain yield. In the future, we will look to add stablecoins as additional collateral to provide users with greater flexibility when minting/ redeeming flexUSD.

Cross-Chain

In the short to mid-term we expect to onboard flexUSD onto at least two of the largest blockchains (based on TVL), which will open flexUSD access to thousands of new users. This should increase the overall market cap of flexUSD.

DeFi

The yield-bearing nature of flexUSD makes it an ideal option for DeFi platforms and users who are looking for yield enhancement opportunities. Today, flexUSD is used in DeFi on the largest DEXes in smartBCH. The next step will be to list on other ERC-20 DEXes and other leading EVM-compatible chains.

Glossary

Repo

Repurchase agreements, otherwise known as 'repo', are agreements where, at one hour, you agree to exchange one asset (A) that you already own for another asset (B) that you, or someone else, needs for a pre-agreed time period (usually one hour). At the end of the time period (one hour) you return the borrowed asset (B) in exchange for your original asset (A). The agreed upon price between (A) at one hour and (A) the next hour is the "repo price" or "cost". The repo price is effectively the fee paid to the lender of asset (B) to compensate them for lending their asset to you for one hour. In short, it's the interest that a borrower pays a lender to borrow their asset for the hour.

Basis trade

Basis trading is a trading strategy which consists of the purchase of a particular financial instrument or commodity and the sale of its related derivative (for example the purchase of a particular bond and the sale of a related futures contract).

Implied orders

Implied orders can be created as spreads between two related markets. For example, in traditional commodity markets you can find tradable implied order books between two corn futures contracts with different expiries. A similar mechanism is present in CoinFLEX, where resting orders in perpetual futures books are paired with resting orders in the repo books to create tradable resting spot orders.

On-chain transactions

Transactions that occur on a blockchain that are reflected on the distributed, public ledger. On-chain transactions are those that have been validated or authenticated and lead to an update to the overall blockchain network.

Perpetual Futures

Also known as perpetual swaps or 'perps'. These are an agreement to buy or sell an asset at an unspecified point in the future.

Bid/Ask

Refers to a two-way price quotation that indicates the best potential price at which a security can be sold and bought at a given point in time. The bid price represents the maximum price that a buyer is willing to pay for a share of stock or other security. The ask price represents the minimum price that a seller is willing to take for that same security. A trade or transaction occurs when a buyer in the market is willing to pay the best offer available—or is willing to sell at the highest bid.

Yield

The earnings generated and realized on an investment over a particular period of time. It is expressed as a percentage based on the invested amount, current market value, or face value of the security.

Smart contract

A computer program or a transaction protocol which is intended to automatically execute, control or document legally relevant events and actions according to the terms of a contract or an agreement. The objectives of smart contracts are the reduction of need in trusted intermediators, arbitrations and enforcement costs, fraud losses, as well as the reduction of malicious and accidental exceptions.

Cold storage

Cold storage is a way of holding cryptocurrency tokens offline. By using cold storage, cryptocurrency investors aim to prevent hackers from being able to access their holdings via traditional means.

Counterparty risk

The probability that the other party in an investment, credit, or trading transaction may not fulfill its part of the deal and may default on the contractual obligations.