BitBay

DYNAMIC PEG

The next evolution of **independent**
and **volatility-resistant** money

AN INTRODUCTION FOR EXCHANGES

BitBay

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INTRODUCTION

BitBay is the world's first peer-to-peer, decentralized contracting platform.

Since 2014, everything from household items to real estate have been bought and sold using BitBay's marketplace, all without any third-party involvement.

BAY is the native coin of BitBay's smart contracts, and offers the combination of stability with long term capital gains - completely unique to its class.

DYNAMIC PEG FAQ

1. HOW DOES THE DYNAMIC PEG BENEFIT EXCHANGES?

- It significantly increases volume/trading fees, as traders seek to increase/protect profits during market downturns
- Offers risk protection from other stablecoin insolvency (no need for fiat reserves or audits)
- It is highly adaptable, offering robust security against extreme demand swings or black swan events
- Diversification of stablecoin listings with a decentralized and non-collateralized stablecoin - one that is unsusceptible to regulation or counterparty risk
- Increase of profits through the exchange of frozen BAY on its own secondary market

DYNAMIC PEG FAQ

2. HOW CAN INVESTORS BENEFIT FROM BITBAY'S DYNAMIC PEG?

POSITIVE PRICE PRESSURE

As the user-base for BitBay's decentralized marketplace increases, so does the demand for liquid BAY needed within its Double Deposit Escrow contracts. As both buyers and sellers lock Liquid BAY into contracts for the duration of their deal, the amount of available Liquid BAY is reduced. This puts positive price pressure on Liquid BAY's exchange rate.

In addition, more Liquid BAY being locked into contracts equates to fewer Liquid BAY staking on the network, and therefore less "staking competition". So the more BitBay's marketplace is used, the higher potential ROI of investors who participate in staking.

STAKING REWARDS

BitBay's Dynamic Peg brings a lucrative variable stake reward system to investors:

Liquid BAY: 5 BAY per reward / APR: 0.25%

Reserve BAY: 10 BAY per reward / APR: 0.5%

Frozen Reserve BAY: 20 BAY per reward / APR: 1%

Frozen Liquid BAY: 40 BAY per reward / APR: 2%

** These figures are based on the entire coin supply staking, annually. This scenario is unlikely, as not everyone who holds BAY will stake. Due to this, these ROI rates tend to be much higher. For example: If only 50% of the entire coin supply staked all year long, then the figures above would double. If 33.33% were staking, they would triple.*

DYNAMIC PEG FAQ

INDEPENDENT CORRELATION

With the Dynamic Peg, BAY's correlation with Bitcoin and the larger cryptocurrency market is completely independent. The direction of price is chosen by the users themselves, and not any large entity. This creates a unique hedging alternative during prolonged bear market cycles, yet can still achieve positive correlation during bull runs.

ACTIVE INFLUENCE

For the first time, investors can play a direct role in the value of their investment, without being a whale. When the market makes a turn, anyone who holds BAY can vote to temporarily freeze/unfreeze the liquid supply, and put pressure on the price.

SECURITY

With the BitBay Markets Client, investors who hold BAY can benefit from one of the most secure (and advanced) crypto wallets in the industry:

- 2 key multisignature wallets
- Steganography (hide your private keys in images)
- Cold staking (between two computers)
- Anti-keylogger

SIMPLICITY

No need for expensive mining equipment to earn passive income. With BitBay's Proof of Stake 3, anyone who holds BAY can earn staking rewards by verifying transactions with a simple laptop computer.

DYNAMIC PEG FAQ

3. HOW MUCH CAN THE SUPPLY/PRICE OF LIQUID BAY FLUCTUATE IN ONE DAY?

The liquid supply level is currently set to change at a variable rate of 1-3% per voting session. Since there are approximately 7 voting sessions per day, the supply can fluctuate 1% compounded (21 times daily) or roughly 19%.

** This rate is based on a compounding effect (during inflation) and a discounting effect (during deflation). As growth and volume of the BitBay platform increases, the rate can be adjusted to create a "smoother" change in supply.*

4. DOES YOUR PROTOCOL REQUIRE INFORMATION OUTSIDE THE BLOCKCHAIN, SUCH AS A FEED OF PRICE DATA? IF SO, HOW DOES THIS ORACLE WORK?

With this system, a reliance on traditional oracles for price data is unnecessary. Currently, users cast votes on the liquid supply based on their own criteria, which acts as a "decentralized human oracle" for liquidity demand. This creates a flexible system that can quickly adapt as market conditions change. However, if other information was needed, then stakers could register their own data and check each other's results.

5. HOW DOES THE DYNAMIC PEG HANDLE "BLACK SWAN" EVENTS SUCH AS AN EXTREME DECLINE IN DEMAND, MARKET SHOCK, ETC.?

The Dynamic Peg excels at adaptability throughout its entire design. No matter how extreme of an event occurs, the supply of Liquid BAY will adjust to meet demand.

If absolutely necessary, the Dynamic Peg can deflate the supply of Liquid BAY down to a maximum of .0000058423% of its total supply, or (58,423 BAY) to keep the price stable. This is more than enough to cover 99.99999% of any "black swan event" that may occur.

In theory, if the demand for liquidity were to continue its decline past the point of maximum deflation, there is always the temporary option of decentralized asset backing. This would allow an investor (or pool of investors) to put up a specific amount of collateral (or a buy wall on an exchange) and have the community select an algorithm which deflates to that amount on a 1:1 ratio.

** The probability of an event like this is extremely low, as the Dynamic Peg is designed to prevent this from happening in the first place.*

INTRO TO TECHNICAL REQUIREMENTS

API FEATURES:

- Bitbayd (QT wallet) provides API calls for any exchange to adapt and use the Dynamic Peg
- Bitbayd is stateless for the exchange
- JSON-RPC calls are also stateless, and are allowed to sync with exchange database transactions

JSON-RPC CALLS:

- Registerdeposit()
- Updatepegbalances()
- Moveliquid()
- Movereserve()
- Movecoins()
- Prepareliquidwithdraw()
- Preparereservewithdraw()

EXAMPLE TRADE DB TRANSACTION:

1. Transaction begin()
2. Fill order
3. Add trade history item
4. Call moveliquid()
5. Update “pegdata” of seller and buyer –Update balances
6. Transaction end()

INTRO TO TECHNICAL REQUIREMENTS

DATA STORED FOR EACH EXCHANGE USER:

Columns of coins information -

- ‘pegdata’ or ‘fractions’
- Efficently packed into 0.5-3KB of data
- SQL can use ‘blob’ as an example

For further technical information please see the ‘Dynamic Peg Integration Guide for Exchanges’ document.

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