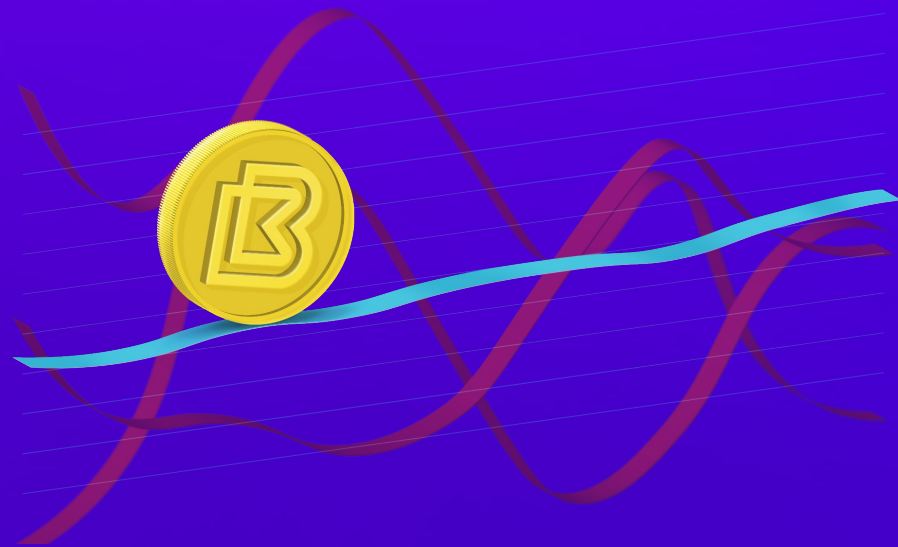




# Dynamic Peg

A Visual Guide to the Protocol



# OVERVIEW

The Dynamic Peg works as an additional layer on top of the standard Bitcoin-like UTXO system.

When the Dynamic Peg is inactive (index=0) then all coins are the same.

When additional rules are introduced, transactions and blocks have checks in place.

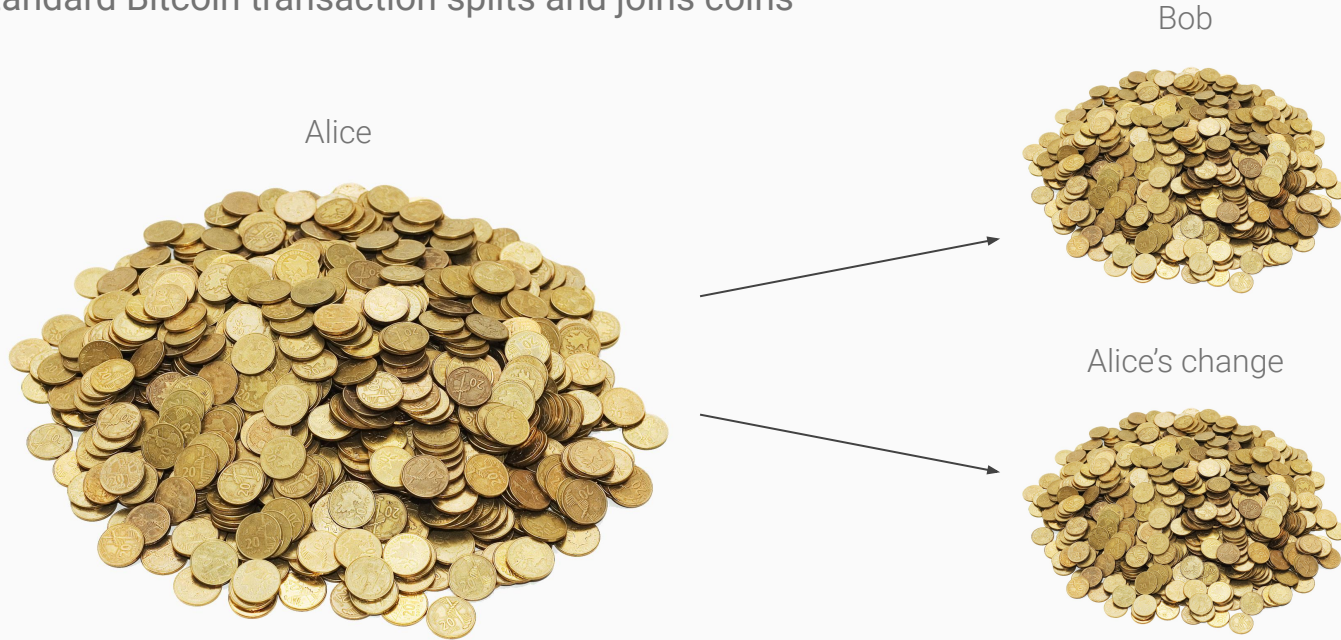
# BITCOIN TRANSACTIONS

1 Bitcoin is a pile of 100 million Satoshi coins



# BITCOIN TRANSACTIONS

A standard Bitcoin transaction splits and joins coins



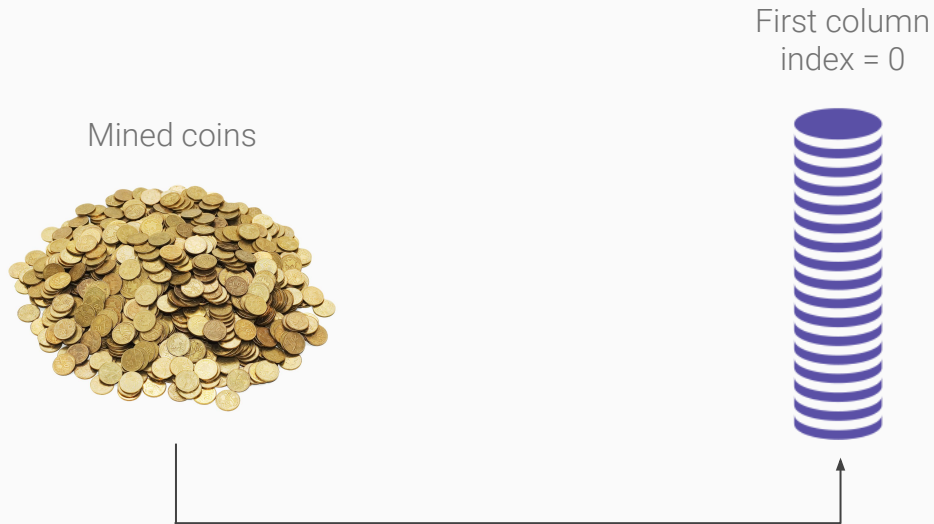
# BITBAY PEG INDEX

Unlike Bitcoin, BAY coins are arranged in 1200 columns with each of these columns having a unique number (index).



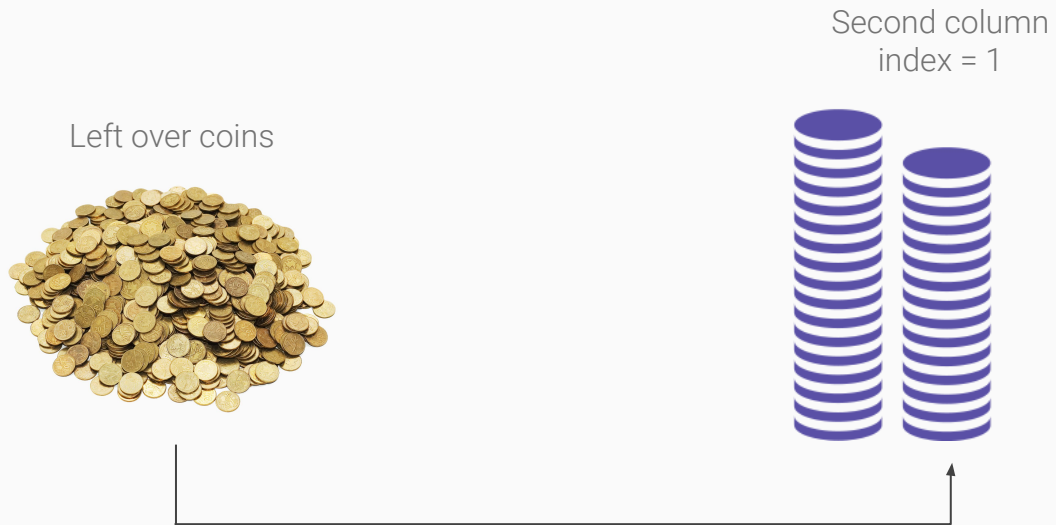
# BITBAY PEG INDEX

When new coins are mined, the first column (index=0) gets 1% of coins from the pile.



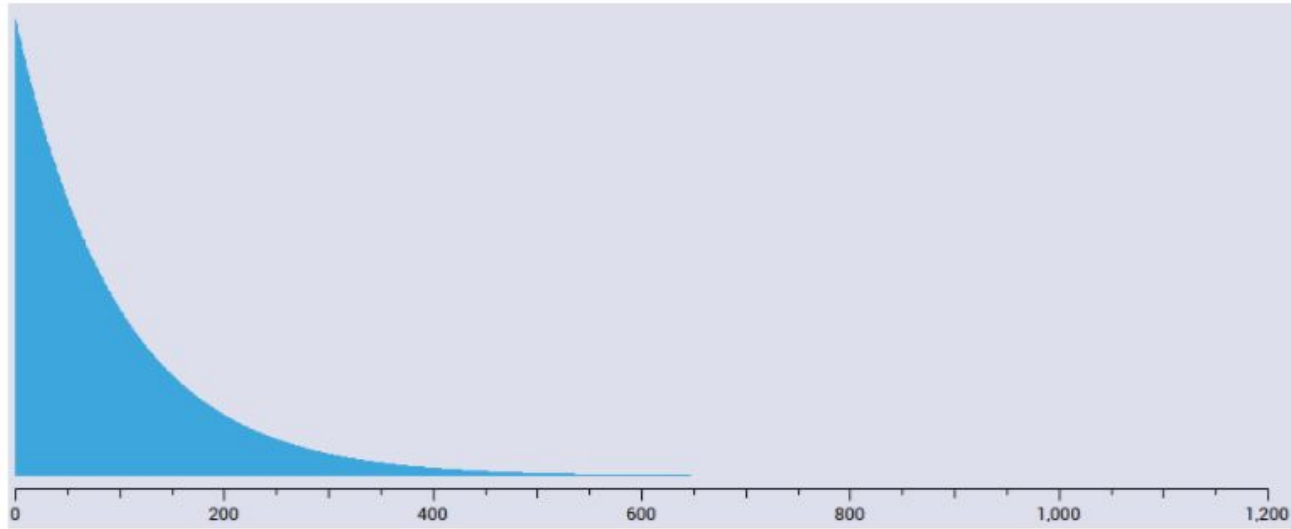
# BITBAY PEG INDEX

The second column (index=1) gets 1% of the coins that are left.



# BITBAY PEG INDEX

The arrangement continues until all coins from the pile are exponentially distributed into 1200 columns.



*Screenshot from the BitBay Qt wallet*



# BITBAY PEG INDEX

The 1200 columns are now divided into two parts: **liquid** and reserve



# BITBAY PEG INDEX

When the peg index = 0 all coins are liquid



# BITBAY PEG INDEX

When the peg index = 1 the first column changes to **reserve**  
All other coins remain **liquid**



# BITBAY PEG INDEX

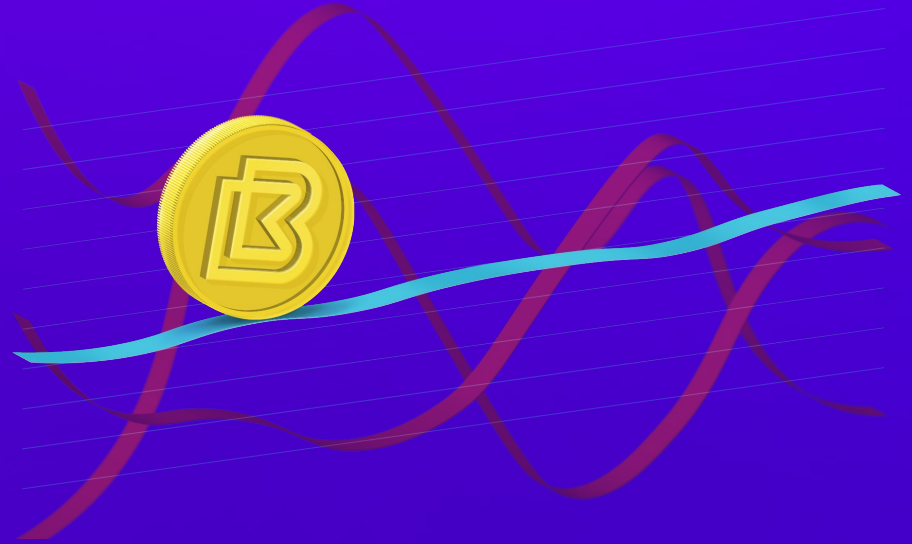
When the peg index = 2 the first two columns change to reserve  
All other coins remain **liquid**



# BITBAY PEG INDEX

- Liquid coins move without limits
- Reserved coins can only move once a month
- When coins move, they move to the same column at their destination.
- Coins 'remember' their liquid/reserver status

# An Example BAY/BAYR Transaction



# BITBAY EXAMPLE TRANSACTION

- Alice has 34 BAY coins, 15 **liquid** and 19 **reserve**
- Alice would like to send 7 coins to Bob but she can only send **liquid** coins, not **reserve** coins.
- Therefore to send coins to Bob, Alice's transaction must use  $7/15$  of the **liquid** coins (plus a correction for rounding)
- Once the transaction is completed, Alice has 19 **reserve** coins and 8 **liquid**, while Bob has 7 **liquid** coins.