Angle

A decentralized, capital-efficient, and over-collateralized stablecoins protocol

Angle Team

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Agenda

1. Introduction to Angle

2. A volatility market

3. The need for traders and additional liquidity

4. Three types of agents

1. Introduction to Angle

Stablecoins market

Stablecoins market is growing at an astounding rate, though no protocol is ideal yet. There are two main types of stablecoins: centralized and decentralized.

Centralized stablecoins face the issues of requiring **trust in a third-party**, and holding the reserves backing the stablecoins in a bank. They are also easier targets for regulators.

Decentralized stablecoins are more suited to the nature of open blockchains, as they are backed by crypto-assets in smart contracts. However, they can suffer from **capital-inefficiency** and/or **lack of modularity** (they can only issue one type of stablecoin).

Centralized VS decentralized stablecoins

	Backed by	Capital Efficiency*
Centralized Stablecoins	Fiat in a bank account (stable)	High
Decentralized Stablecoins	Crypto assets in smart contracts (potentially very volatile)	Low

*How much stablecoin you can issue with a certain amount of collateral. Needing 150 worth of collateral to issue 100 of stablecoins would be inefficient.

Angle makes the best out of both models by issuing decentralized stablecoins with high capital-efficiency.

Room for better stablecoins

To summarize, most stablecoins
are either
centralized,
capital-inefficient,
or **not generalizable**.

Angle Protocol has a
modular mechanism
to issue stablecoins with
stability and **capital-efficiency**,
in a **decentralized** way.

2

A volatility market

To be generalizable, Angle needs to **be able to issue stablecoins on top of any robust collateral***. The main challenge to achieve is striping out the volatility of the different collateral assets.

Volatility   **Stability**

→
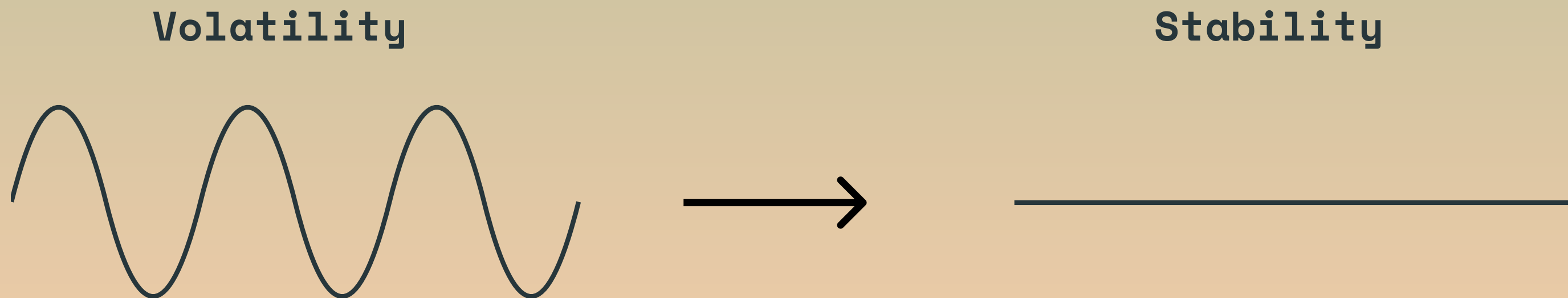
*Any type of asset used to back an operation.
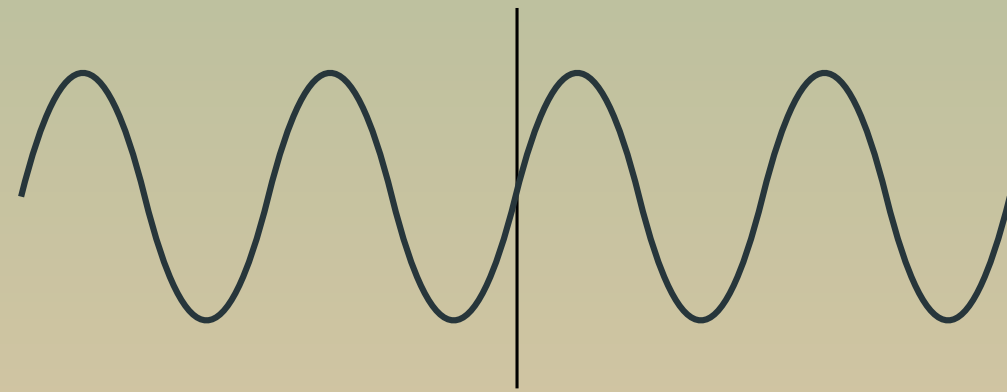In Angle, crypto assets are used as collateral to back stablecoins minting.

Angle's solution
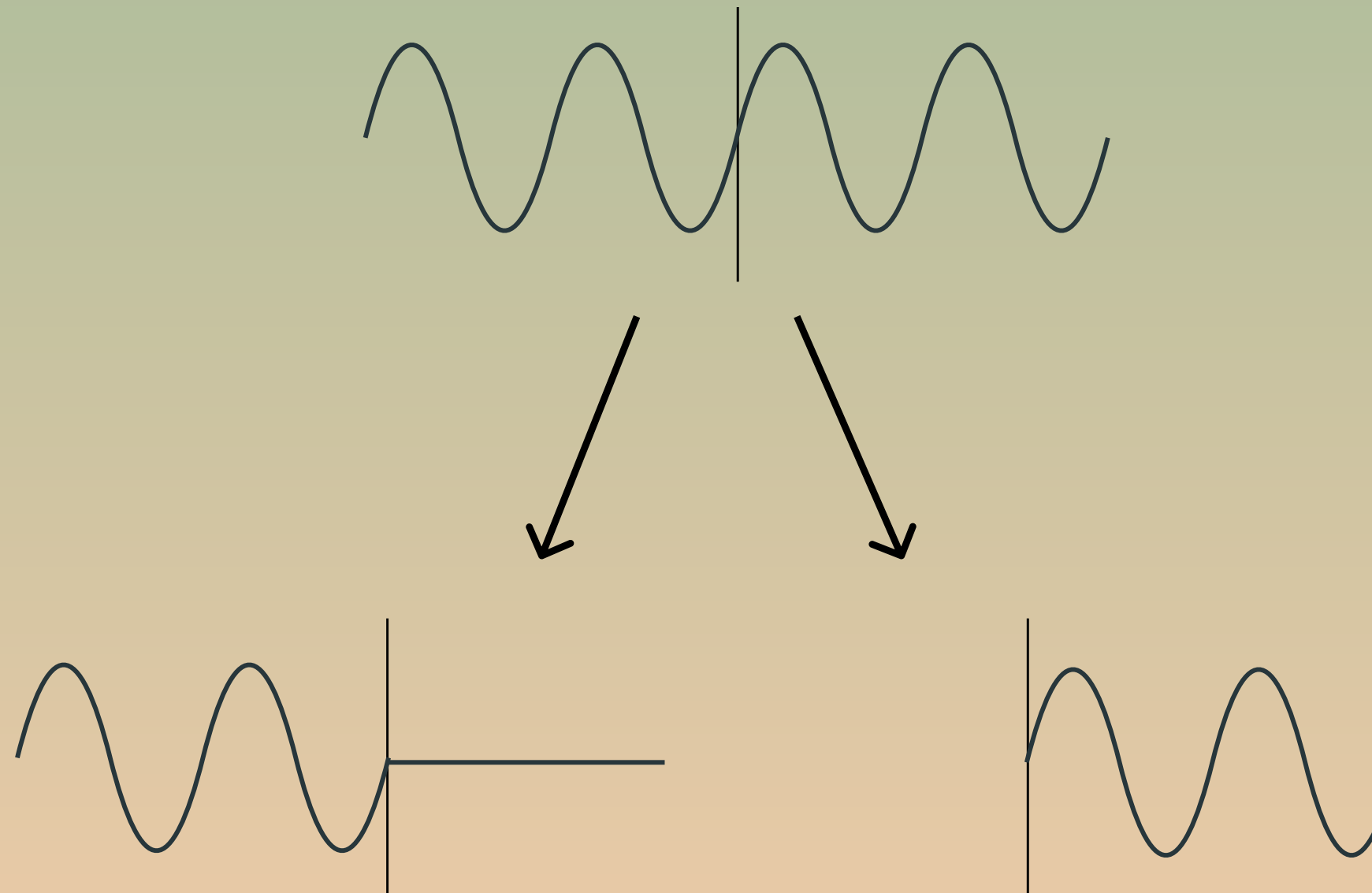
To achieve this, Angle uses traders (called Hedging Agents) that open leverage long positions on the collateral deposited in the protocol.

By doing so, the value deposited is split into two parts: 1) the value at the time of deposit in the form of stablecoin, and 2) the future volatility in the form of leveraged positions.
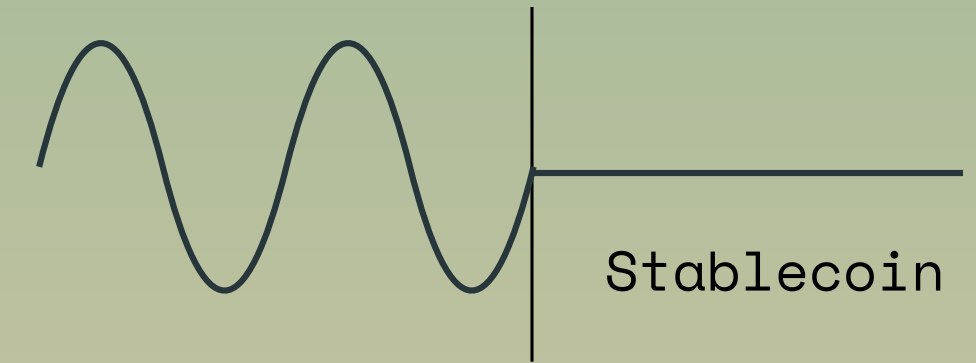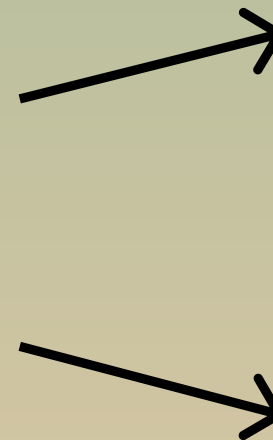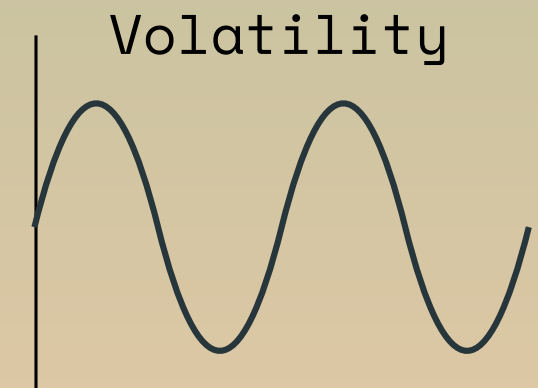
Splitting volatility

Stablecoin

Volatility

Initial Asset

Can be potentially any asset, volatile or not, provided there is an oracle and some demand for it
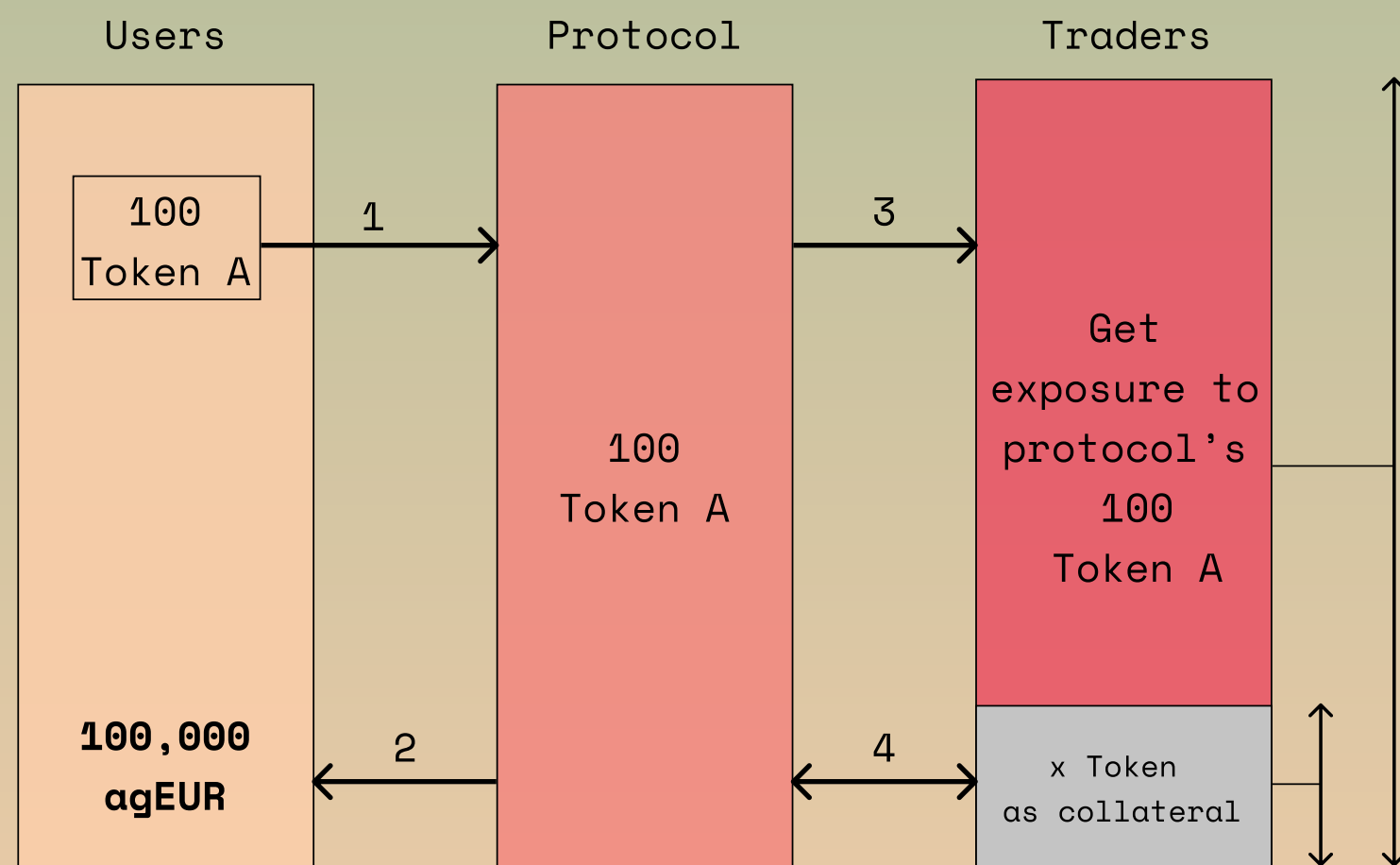
Stablecoin & Remaining Volatility

The volatility of the asset is split into one stable value, and the remaining volatility is transferred to traders

The need for traders

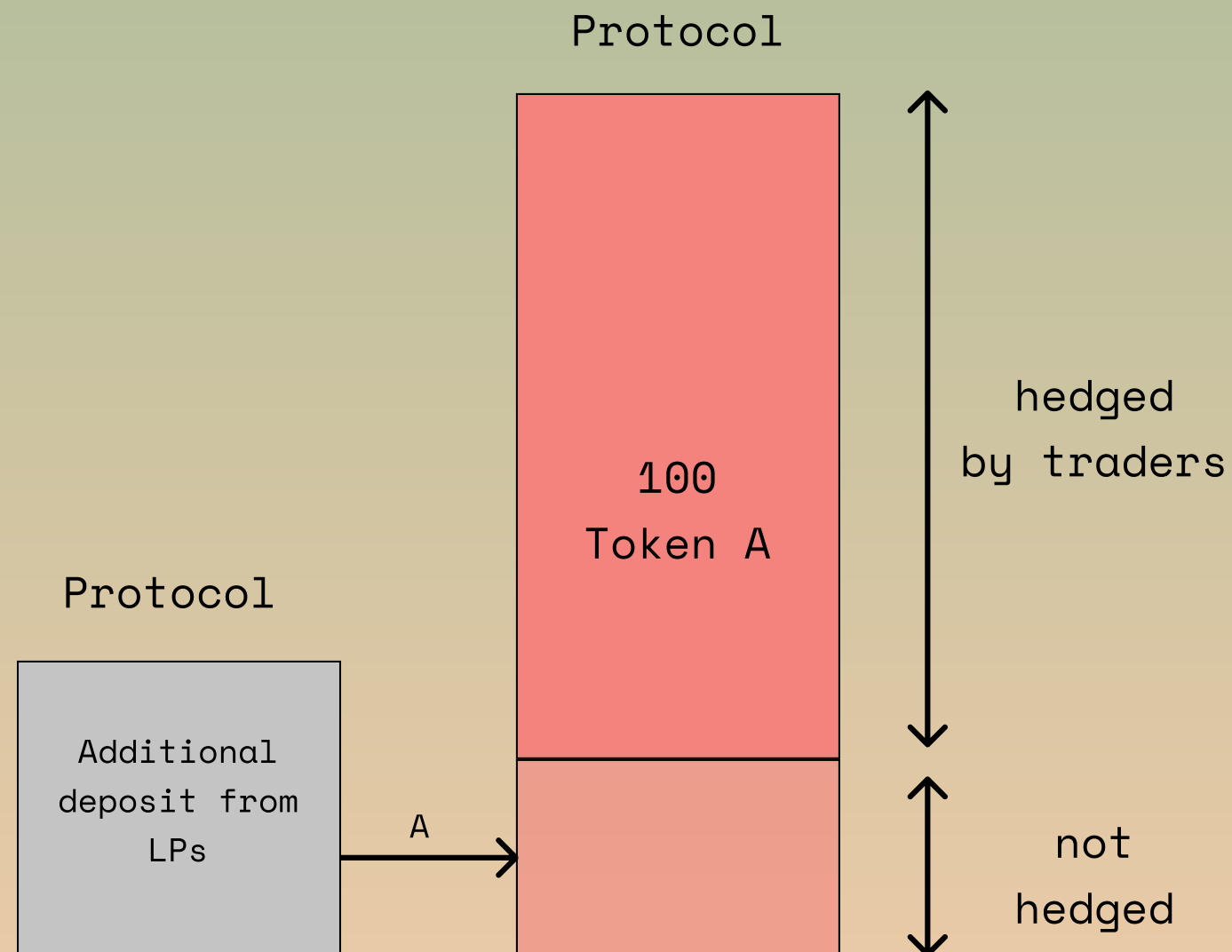## Necessary to redistribute the volatility and ensure the protocol is fully backing agTokens* at all times

1: Users send 100 Token A to the protocol to mint agEUR (1 Token A is worth 1,000€).

2: 100,000 agEUR are minted and sent to the users.The protocol reserves are now exposed to Token A price changes.

3: To protect from that, the protocol lets traders get exposure to up to 100 Token A in total

4: Depending on the price changes, the protocol keeps or redistributes traders' losses or profits

*agTokens are Angle stablecoins

For example, agEUR is Angle's EUR-pegged stablecoin.

Additional reserves

Protocol

100
Token A

hedged
by traders

not
hedged

Protocol

Additional
deposit from
LPs

A

Angle also relies on liquidity providers to deposit additional funds in the protocol, used as a buffer if the protocol is not fully hedged by traders. (A)
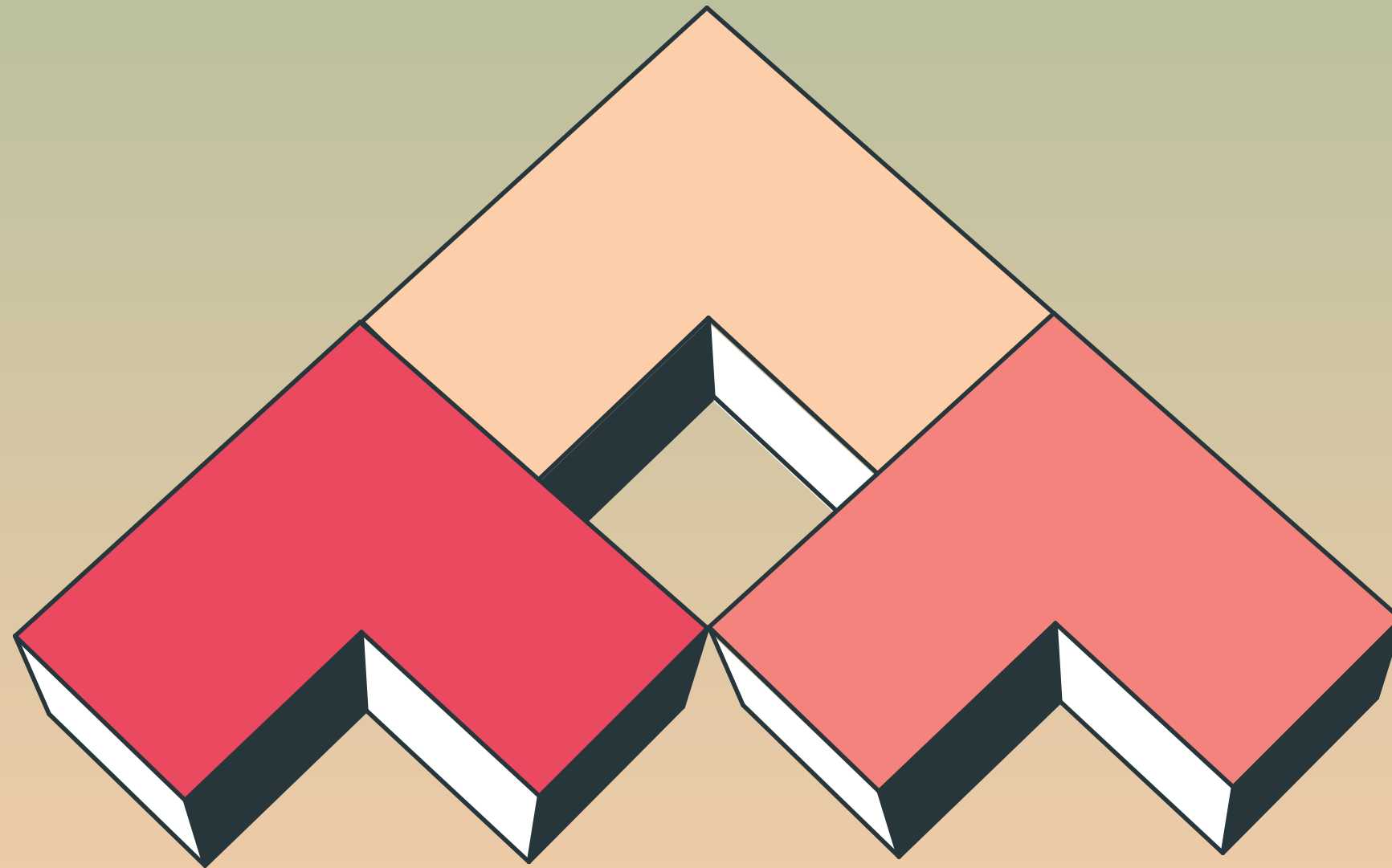
1:1 convertibility

Thanks to these two mechanisms, Angle can issue **decentralized stablecoins** at a **1:1 rate** at all times, while making sure they are always **fully backed** by the protocol's reserves.

Now, let's see how stablecoins, traders, and liquidity providers work in Angle.↓

4

Three types of agents

agToken users

mint and burn agTokens
(Angle stablecoins) at a 1:1
rate directly in the
protocol

Hedging Agents
(traders)

open leverage long positions
in the protocol, **insuring it
against collateral
volatility**

Standard Liquidity Providers

deposit additional
collateral in the protocol
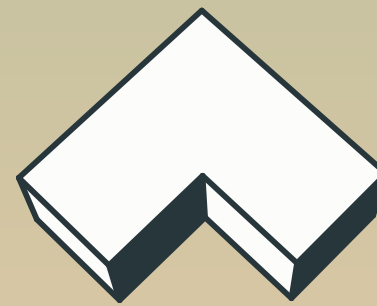against interest and part of
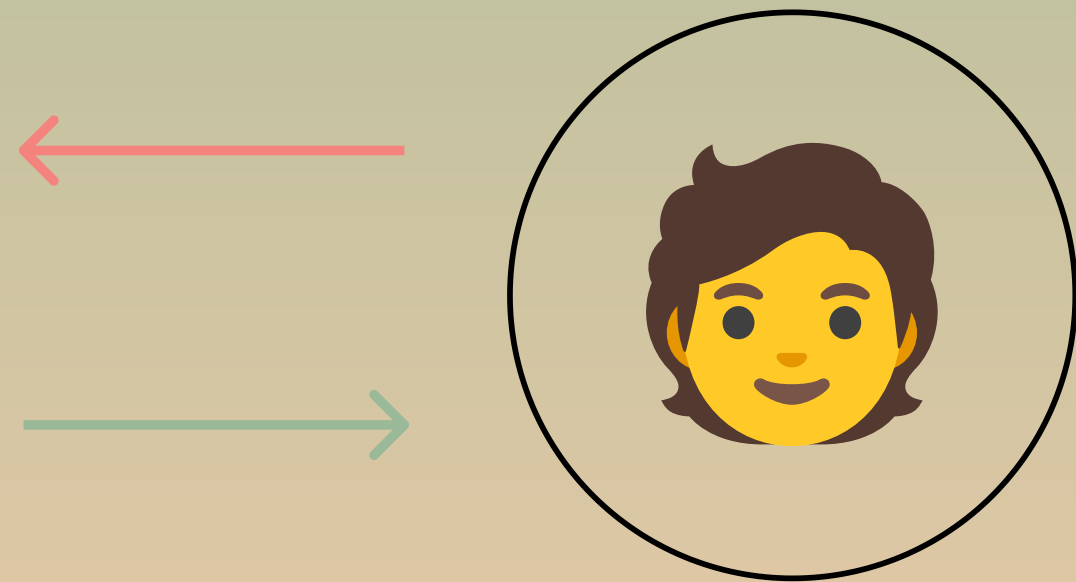the txs fees

Minting and Burning agEUR

Minting agEUR

Burning agEUR

Send collateral
to the protocol

Send agEUR back to the
protocol which are burned

Angle

agEUR are minted and
sent to users

Get back an equivalent
amount of collateral

agToken

Impact of **minting agEUR**:

Increases agToken supply
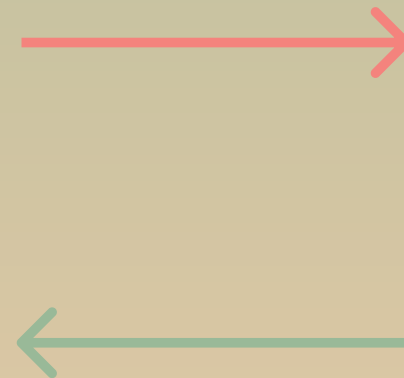
Increases collateral in the protocol

Increases protocol exposure to collateral price changes
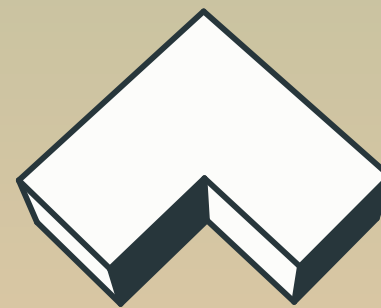
agToken

Pitch

Perpetual position as a Hedging Agent

Opening a leverage position

Closing a leverage position

Send collateral and chooses a
specific leverage or position size

Burn the position token

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Receive a token representing their
collateral/agToken position and
right to the potential P&L
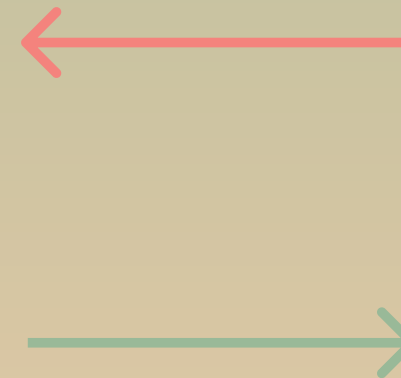
Get back P&L and
and remaining margin

Impact of **opening positions** in the protocol:
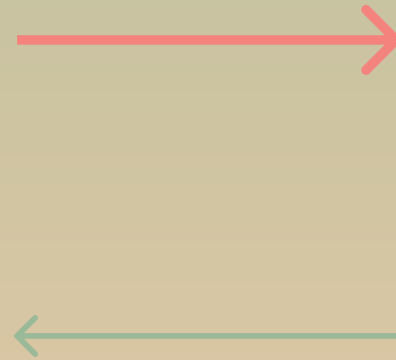
Increases collateral in the protocol

Decreases protocol exposure to collateral price change

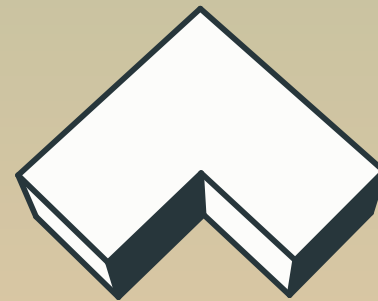Increases hedging agents exposure to collateral price change

Depositing Liquidity as a Standard Liquidity Provider

Depositing liquidity

Removing Liquidity

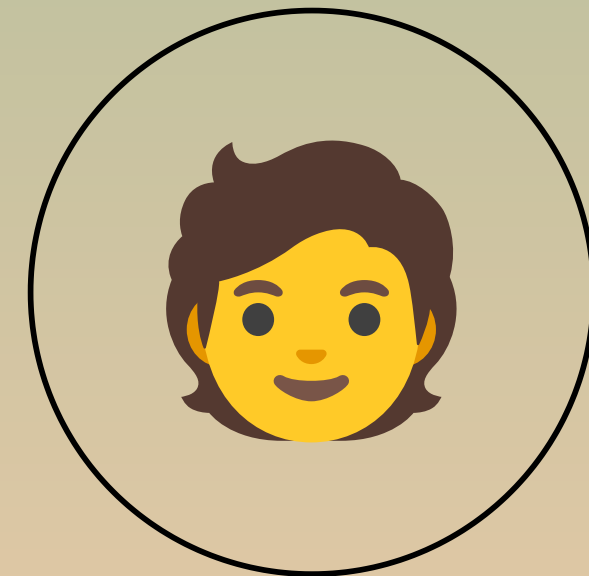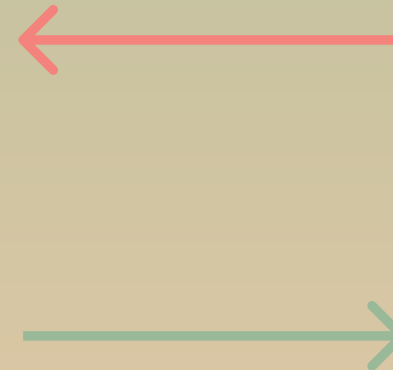Deposit funds into the protocol

Burn their sanTokens

Angle

Receive sanTokens representing their share of the pool earning interests plus a share of tx fees.

Get back the deposited funds, plus the potential interests

SLP

Impact of **depositing funds** in the protocol:

Increases collateral in the protocol

Users earn yield on top of the deposited collateral

Thanks to its **unique design** and the roles played by **Hedging Agents** and **Standard Liquidity Providers**

Angle is able to issue **multiple types of stablecoins** backed by **different crypto assets**

in a **capital-efficient** and **decentralized** way.

END

Pitch