**Welcome to Synthetix**

Synthetix is a decentralized liquidity provisioning protocol built on Ethereum and Optimistic Ethereum (a layer two scaling solution built on Ethereum). Synthetic assets, and associated products, are collateralized by stakers via Synthetix Network Token (SNX), which when locked in a staking contract enables the issuance of synthetic assets (synths). This pooled collateral model allows users to perform conversions between synths directly with the smart contract, avoiding the need for counterparties. This mechanism solves the liquidity and slippage issues experienced by DEXs.

Synthetix liquidity powers a range of derivatives and on-chain financial instruments. You can learn more about the [two types of synthetic assets](https://docs.synthetix.io/synthetix-protocol/synthetic-assets) that protocols will integrate to create on-chain derivatives.

The Synthetix Protocol does not operate any user-facing front-ends, which allow users to trade. Instead, it serves as a backend liquidity provisioning tool to support user-facing DeFi applications. There is a growing number of protocols that utilize this capital and generate trading fees for stakers. See the ["Built on Synthetix"](https://docs.synthetix.io/synthetix-ecosystem/built-on-synthetix) section to learn more.

We should make clear the distinctions between the different areas of "Synthetix":

* **The Synthetix Protocol**: A suite of smart contracts that provisions liquidity with the input of Synthetix Governance to enable various financial derivative products.
* **The Synthetix Staking Interface**: A web interface that allows for easy interaction with Synthetix Staking and other synthetix products
* **Synthetix Governance**: A representative council system that governs Synthetix. Four staker-elected councils exist Spartan, Treasury, Ambassador, and Grants Council.
* **Synthetix Partners & Integrators**: Protocols listed under the Synthetix Partners and Integrators section have integrated with Synthetix products and liquidity to build user-facing protocols for varying use cases.
* **The Greater Synthetix Ecosystem**: Many additional protocols have spun out of the Synthetix Community or have very close relationships with Synthetix. While these protocols do not directly integrate with Synthetix liquidity, they are closely intertwined with Synthetix.

**The Synthetix Protocol**

Synthetix is a decentralized liquidity layer on Ethereum and Optimism that serves as a liquidity backend for some of the most exciting protocols in DeFi.

Stakers provide liquidity, which collateralizes a suite of synthetic assets, and in return, earn rewards and market yields. This liquidity underwrites the trading of synthetic assets and perpetual futures at oracle prices, eliminating the need for traditional order books and counterparties. As a result, liquidity is composable and fungible across markets, and conventional slippage is removed.

Synthetix liquidity currently supports two primary synthetic assets: spot synths and perpetual futures:

* Spot Synths track the value of real-world assets, such as cryptocurrencies, fiat currencies, and commodities, allowing users to gain exposure to various assets without holding the underlying assets
* Perps is a decentralized perpetual futures exchange utilizing Synthetix liquidity to be the counterparty to traders, with deep liquidity and low fees. Stakers (Perp LP's) are exposed to the combined performance of all traders, as well as earning trading fees.
  + Off-chain oracles reduce fees to 5-10bps, and risk management tools ensure market neutrality over the long term.
  + Funding rate and premium/discount mechanisms incentive traders to balance markets to become delta neutral.

Synthetix supports robust liquidity and derivatives, which has led to the development of some of the most innovative and interesting DeFi protocols built on top of Synthetix, comprising the Synthetix Ecosystem.

# Synthetix Token (SNX)

The Synthetix Network token (SNX) incentivizes coordination and growth within the Synthetix Network. It has two primary functions: (a) **Staking** and (b) **Governance**.

### Staking

SNX Stakers earn weekly rewards for collateralizing the network. These rewards are paid in two ways. One is from **trading fees**, which are charged to traders. The other is **inflationary rewards**, which are newly minted SNX tokens held in escrow for a year. Escrow-locked SNX tokens can be staked during this escrow and provide further rewards to stakers.

[Staking](https://docs.synthetix.io/staking)

### Inflation Rewards

Synthetix distributes weekly inflation rewards based on [SIP-202: Target Staking Ratio](https://sips.synthetix.io/sips/sip-202/) guidelines and variables set in [SCCP-211](https://sips.synthetix.io/sccp/sccp-211/).

The goal is to achieve a target staking ratio by adjusting the inflation rate weekly. The staking ratio is defined as the percentage of SNX collateral in staked addresses versus the total SNX collateral.

The inflation rate changes per the following rules:

* Staking ratio >70%: Inflation decreases by 5%.
* Staking ratio 60-70%: Inflation decreases by 2.5%.
* Staking ratio <60%: Inflation increases by 5%.

For up-to-date inflation data, see the [Synthetix Inflation Stats](https://flipsidecrypto.xyz/synthquest/q/inflation-table-YVromr).

Please note that these ratios can change based on SCCPs approved by the Spartan Council.

### Governance

Synthetix Stakers are assigned a percentage of debt ownership proportion to their amount of SNX staked. Then their voting weight is quadratically weighted for all but the Treasury Council. Voting is done through the fully on-chain Synthetix Governance Module.

# The Role of Stakers

Explaining the importance of stakers within Synthetix

On Synthetix, all liquidity for Synthetix products is created by staking. Staking is an integral part of of the system and provides deep liquidity by locking collateral and maintaining a target c-ratio, which powers all of the products within the Synthetix protocol.

When you stake SNX and mint sUSD, you take on debt reflecting the amount of sUSD that must be burned to unstake your SNX. This debt, which also represents a proportion of all the debt on Synthetix, is denominated in sUSD and increases and decreases in accordance with the supply of Synths and their exchange rates. For example, if half of Synthetix's Synths were synthetic ether (sETH) and the price of ether doubled, then the total debt and each staker's debt would rise by one quarter.

Synthetix staking is vastly different from other DeFi protocols because it allows anyone to earn rewards by contributing collateral to the Synthetix protocol. Staked SNX enables the many benefits for protocols built on Synthetix, such as deep liquidity, low slippage, and highly competitive trading fees.

### Benefits of Staking

Stakers earn weekly rewards for collateralizing the network. These rewards are paid in two ways. One is from trading fees, which are charged to traders. The other is inflationary rewards, which are newly minted SNX tokens held in escrow for a year. Escrow-locked SNX tokens can be staked during this escrow and provide further rewards to stakers.

### Risks of Staking

The rewards stakers earn are not risk-free. The staker is providing collateral for traders to trade against. If traders are profitable, net of fees, stakers profits may decrease.

Additionally, smart contract risk, oracle risks, and other risks are also present when providing collateral and using Synthetix. Please operate at your own risk and do your own research.

### ****How SNX and other collateral types back Synthetix Products****

All synths are backed by a mixture of SNX, ETH, LUSD, and other collateral types.

Synths are minted when SNX holders stake their SNX as collateral using the Synthetix staking application, a decentralized application for interacting with Synthetix staking contracts. The system is currently backed by a target collateralization ratio (see [**Current Protocol Parameters**](https://docs.synthetix.io/staking/current-protocol-parameters)), as this is a constantly updated variable through community governance. SNX incurs debt when Synths are minted, and to exist the system (i.e. unlock their SNX), they must pay back this debt by burning Synths.

ETH, LUSD, and additional collateral types (depending on governance inclusion) also back the system as forms as collateral. This means that users can either borrow against these assets, or lock them in a wrapping contract to generate sUSD, sETH, or other synths.

### ****Why Stakers Stake****

SNX holders are incentivized to stake their SNX in many ways. Firstly, there are exchange rewards. These are generated whenever someone makes an exchange within the Synthetix system. Each trade generates an exchange fee that is sent to a fee pool, available for stakers to claim their proportion each week. This fee is set by governance, and will be displayed by the SNX integrator before the trade. The other incentive for stakers is SNX staking rewards, which comes from the protocols inflationary monetary policy. These SNX tokens are distributed to SNX stakers weekly on a pro-rata basis provided their collateralization ratio does not fall below the target threshold.

To learn more about staking, please visit the Synthetix Staking guide.

[Staking](https://docs.synthetix.io/staking)

### ****Minting, burning, and the C-Ratio****

The mechanisms above ensure SNX stakers are incentivized to maintain their Collateralisation Ratio (C-Ratio) at the target rate. This ensures the Synthetix protocol is backed by sufficient collateral to absorb large price shocks. If the value of SNX, each staker’s C Ratio will fluctuate. If it falls below the target c-ratio (with a small buffer to allow for minor fluctuations), they will be unable to claim fees until they restore their ratio.

They adjust their ratio by either minting Synths if their ratio is above the target c-ratio or burning Synths if their ratio is below the target c-ratio.

### ****Stakers, debt, and pooled counterparties****

SNX stakers incur a ‘debt’ when they mint Synths. This debt can increase or decrease independent of their original minted value, based on the exchange rates and supply of Synths within the network.

For example, if 100% of the Synths in the system were synthetic Bitcoin (sBTC), which halved in price, the debt in the system would halve, and each staker’s debt would also halve. This means in another scenario, where only half the Synths across the system were sBTC, and BTC rises 50%, the system’s total debt—and each staker’s debt—would increase by one 25%.

In this way, stakers act as a pooled counterparty to all Synthetix Network exchanges; stakers take on the risk of the overall debt in the system. They have the option of hedging this risk by taking positions external to the system. By incurring this risk and enabling trading on Synthetix stakers earn a right to fees generated by the system.

### ****Liquidation Risk****

Once a stakers c-ratio goes below the liquidation ratio, they are eligible to be flagged for liquidation. They will then have a set amount of time to raise their c-ratio back to the target c-ratio. If they do not raise their c-ratio, they will be force liquidated with a penalty. If they do raise their c-ratio above the target, their liquidation flag will be removed.

Stakers who experience a liquidation will incur a penalty from SNX liquidated. When a liquidation occurs, SNX in escrow and sUSD debt is distributed to healthy stakers to ensure the system's longterm health.

Users who flag SNX and liquidate accounts for liquidation are rewarded. These rewards incentivize users to run bots that automatically flag stakers for liquidation.

# Oracles

### What are oracles?

Synthetix utilizes the decentralized **Chainlink** [oracle network](https://chain.link/education/blockchain-oracles) & **Pyth** [oracle network](https://pyth.network/price-feeds?asset-type=crypto&status=online), which provides up-to-date token prices data to smart contracts on Ethereum and Optimism Mainnet.

**Responsibilities of an oracle**

* Updates, stores, and distributes up-to-date token prices relevant to the system.
* Disables exchange functionality if prices are not fresh.
* Provides functionality to perform exchange rate conversions between synth flavors.

### How does Synthetix utilize oracles?

The Synthetix protocol utilizes its respective ExchangeRates contract to retrieve frequently stored price updates.

### Synthetix Oracle Contracts

At Synthetix, the on-chain manifestation of the oracle is the [ExchangeRates](https://docs.synthetix.io/contracts/source/contracts/ExchangeRates/) contract, which stores prices that are frequently updated by the oracle. The primary user of these prices is the [Synthetix](https://docs.synthetix.io/contracts/source/contracts/Synthetix/) contract, which needs them to calculate debt allocations when issuing and burning synths, and to determine the correct quantity of synths when performing an exchange of one flavour for another.

It is also used by some other contracts, such as the [Depot](https://docs.synthetix.io/contracts/source/contracts/Depot/) and [PurgeableSynth](https://docs.synthetix.io/contracts/source/contracts/PurgeableSynth/) contracts.

### Constituent Contracts

| Contract | Description |
| --- | --- |
| Oracle | The oracle is responsible for collecting and updating all token prices known to the Synthetix system. Although it is not a contract, it controls a known Ethereum address from which price updates are sent to the [ExchangeRates](https://docs.synthetix.io/contracts/source/contracts/ExchangeRates/) contract. |
| ExchangeRates | The Synthetix exchange rates contract which receives token prices from the oracle, and supplies them to all contracts that need it. |

# Synthetix Litepaper

Version: 1.6 (Jan 2023)

## Abstract

Synthetix is a decentralized liquidity provisioning protocol built on Ethereum and Optimistic Ethereum (a layer two scaling solution built on Ethereum). Synthetic assets, and associated products, are collateralized by stakers via Synthetix Network Token (SNX), which when locked in a staking contract enables the issuance of synthetic assets (synths). This pooled collateral model allows users to perform conversions between synths directly with the smart contract, avoiding the need for counterparties. This mechanism solves the liquidity and slippage issues experienced by DEXs.

Many protocols have built ontop of the Synthetix infrastructure. Learn more about these protocols in the "Built on Synthetix" section in the docs.

[Synthetix Ecosystem](https://docs.synthetix.io/synthetix-ecosystem)

## Collateral within the Synthetix Protocol

### ****How SNX backs Synths****

All Synths are backed by SNX tokens. Synths are minted when SNX holders stake their SNX as collateral using the Synthetix Staking application, a decentralized application for interacting with the Synthetix contracts. Synths are currently backed by a target collateralization ratio (see [**Current Protocol Parameters**](https://docs.synthetix.io/staking/current-protocol-parameters)). SNX stakers incur debt when they mint Synths, and to exit the system (i.e. unlock their SNX), they must pay back this debt by burning Synths.

**Additional Collateral**

Governance has at times introduced additional collateral types into the system; this has included ETH, LUSD, and DAI through loans, and wrappers. Learn more about these alternative collateral types by reading the [relevant SIPs](https://sips.synthetix.io/all-sip/).

### ****Why SNX holders stake****

SNX holders are incentivized to stake their SNX tokens in many ways. Firstly, there are exchange rewards. These are generated whenever someone interacts with Synthetix Liquidity (i.e. on Kwenta Perpetual Futures). Each trade generates an exchange fee sent to a fee pool, available for SNX stakers to claim their proportion each week. The other incentive for SNX holders to stake/mint is SNX staking rewards, which comes from the protocol’s inflationary monetary policy. As of February of 2022, the Synthetix inflationary system is derived from a target staking ratio. This change introduces a target ratio for staking of 85%. It then adjusts the inflation weekly up or down by 10% depending on whether the staking ratio is below or above the target ratio to incentivize stakers to hit this target. If it is between 80-90%, then inflation is decreased by 5%. These SNX tokens are distributed to SNX stakers weekly on a pro-rata basis provided their collateralization ratio does not fall below the target threshold.

### ****Minting, burning, and the C-Ratio****

The mechanisms above ensure SNX stakers are incentivized to maintain their Collateralisation Ratio (C-Ratio) at the target ratio. This ensures Synths are backed by sufficient collateral to absorb large price shocks. If the value of SNX or Synths fluctuates, each staker’s C Ratio will fluctuate. If it falls below the target (although there is a small buffer allowing for minor fluctuations), they will be unable to claim fees until they restore their ratio. They adjust their ratio by either minting or burning.

### ****Stakers, debt, and pooled counterparties****

SNX stakers incur a ‘debt’ when they mint Synths. This debt can increase or decrease independent of their original minted value, based on the exchange rates and supply of Synths within the network.

For example, if 100% of the Synths in the system were synthetic Bitcoin (sBTC), which halved in price, the debt in the system would halve, and each staker’s debt would also halve. This means in another scenario, where only half the Synths across the system were sBTC, and BTC doubled in price, the system’s total debt—and each staker’s debt—would increase by one quarter.

In this way, SNX stakers act as a pooled counterparty to all Synth exchanges; stakers take on the risk of the overall debt in the system. They have the option of hedging this risk by taking positions external to the system. By incurring this risk and enabling trading on Synthetix, stakers earn a right to receive fees generated by the system.

Interested in learning some of the basics about staking? See the staking section of the docs

[Staking](https://docs.synthetix.io/staking)

### ****Liquidation Risk****

#### What are the benefits of adding liquidation to the system?

* It creates a stronger incentive for stakers to maintain a healthy C-Ratio, because if they do not they will be liquidated with a penalty.
* This creates stronger incentives for a healthy network C-Ratio, as other network participants can actively improve the network C-Ratio by liquidation stakers below the liquidation ratio.
* It provides a solution to staking wallets that have been abandoned or whose private keys have been lost, as they will no longer drag down the network C-Ratio.

Once a person's C-Ratio goes below the liquidation ratio, and they are flagged, they will have 12 hours to raise their C-Ratio. In this scenario, one of three things will happen:

1. 1.

Your C-Ratio goes below the liquidation ratio, and you are flagged and do not self-liquidate.

* + You will be liquidated and incur a the forced liquidation penalty on your staked SNX; your SNX will be used to pay off your debt, and you will be left with what is leftover; all penalty SNX will be distributed to other stakers.

1. 2.

Your C-Ratio goes below the liquidation ratio, and you are flagged, and you self-liquidate. Your liquidated SNX will be used to pay off your debt, leaving you with what is leftover.

* + You will be liquidated and incur a self-liquidation penalty on your staked SNX; all penalty SNX will be distributed to other stakers.

1. 3.

Your C-Ratio is above the target c-ratio after being flagged b/c you burned sUSD or minted new debt.

* + Nothing will happen; you will not be liquidated.

1. 4.

Alternatively, you can utilize the self-liquidation mechanism at any point below the target ratio.

## Synthetix and Partner Protocols

### Advantages of Synthetix Infrastructure and liquidity provisioning

Trading on Synthetix infrastructure provides many advantages over centralized exchanges and order book based DEX’s. The lack of an order book means all trades are executed against the contract, known as P2C (peer-to-contract) trading. Assets are assigned an exchange rate through price feeds supplied by an oracle, and can be converted using partner apps.

### ****Spot Synths****

Synthetic assets provide exposure to an asset without holding the underlying resource. This has a range of advantages, including reducing the friction when switching between different assets, expanding the accessibility of certain assets, and censorship resistance.

### ****How Synths work****

Synths are synthetic assets that track the price of the underlying asset. They allow holders to gain exposure to various asset classes without holding the underlying assets themselves or trusting a custodian.

### ****Synthetix Futures****

Synthetix Perps is a decentralized perpetual futures exchange with deep liquidity and low fees that utilizes liquidity from the Synthetix debt pool.

Users can trade perps and gain exposure to a range of assets without holding the actual asset. The margin for each position is denominated in sUSD, which can be minted and burned as needed, allowing users to avoid exposure to volatility in the value of their margin and simplifying PnL and liquidation calculations.

As the counterparty to all orders, the SNX debt pool takes on the risk of any skew in the market. A perpetual-style funding rate is paid from the heavier to the lighter side of the market to encourage a neutral balance. Perps enable a much expanded and capital-efficient trading experience by enabling leveraged long and short exposure.

### ****Partner Protocols****

The Synthetix Protocol does not operate any user-facing front-ends, which allow users to trade. Instead, it serves as a backend liquidity provisioning tool to support user-facing DeFi applications. There is a growing number of protocols that utilize this capital and generate trading fees for stakers. See the "Built on Synthetix" section to learn more.

## System Architecture

### ****Minting Synths****

An SNX holder can mint sUSD by locking their SNX as collateral via the Synthetix smart contract. The steps involved when an SNX holder mints are:

* The Synthetix contract checks that the SNX staker can mint Synths against their SNX, which requires their Collateralisation Ratio to be below the target c-ratio
* Debt shares are issued to a staker to track stakers issued debt amount when minting or burning sUSD
* With the debt assigned to the staker, the Synthetix contract instructs the sUSD contract to issue the new amount. It adds it to its total supply and assigns the newly minted sUSD to the user’s wallet.

If the price of SNX increases, an equivalent portion of a staker’s SNX is automatically unlocked as collateral. For example, if a user locks $100 of SNX as collateral, and the value of SNX doubles, then half of their SNX (total value: $200) is locked and the other half is unlocked. If they wish, that extra unlocked SNX can be staked to mint more sUSD.

### ****Exchanges****

The steps involved for the smart contracts to process a Synth exchange (from sUSD to sBTC in this example) are below:

* Burn the source Synth (sUSD), which involves reducing that wallet address’s sUSD balance and updating the total supply of sUSD.
* Establish the conversion amount (i.e. the exchange rate, based on the price of each currency).
* Charge an exchange fee, and send the fee as sUSD to the fee pool, where it can be claimed by SNX stakers.
* The remaining (after the fee) is issued by the destination Synth (sBTC) contract and the wallet address balance is updated
* The sBTC total supply is updated.

No counterparty is required to exchange, as the system converts the debt from one Synth to another. Hence no order books or order matching is required, resulting in infinite liquidity between Synths. No debt change is required to be recorded against the debt pool either, as the same value is burned from the source Synth and minted from the destination Synth.

### ****Claiming Fees****

When Synthetix liquidity is used to exchange through the Synthetix contract, a fee is extracted and sent to the fee pool to be claimed by SNX stakers. When claiming fees a staker also claims their SNX staking rewards, which reward them with extra SNX for staking the SNX they currently have. The smart contracts’ process once a staker requests to claim their fees is as follows:

* The fee pool checks whether there are fees currently available and whether the staker is eligible to receive fees.
* The amount of fees in sUSD is sent to the staker’s wallet address and the balance of the fee pool is updated.
* Additionally, a pro-rata amount of escrowed (inflationary)SNX is assigned to the wallet address from the SNX staking rewards contract.

Fees are allocated based on the proportion of debt each staker has issued. For example, if a staker has issued 1,000 sUSD in debt, the debt pool is 10,000 sUSD, and 100 in fees are generated in a fee period, this staker is entitled to 10 sUSD because their debt represents 10% of the debt pool. The same proportional distribution mechanism is used for SNX staking rewards.

### ****Burning debt****

When an SNX staker wants to exit the system or reduce their debt and unlock staked SNX, they must pay back their debt. At its simplest: a staker mints 10 sUSD by locking SNX as collateral, and must burn 10 sUSD to unlock it. But if the debt pool fluctuates (and therefore their individual debt fluctuates) while they are staked, they may need to burn more or less debt than they minted. The process for reducing debt to zero is as follows:

* The Synthetix contract determines their debt balance
* The required amount of sUSD is burned, and total supply of sUSD is updated along with the sUSD balance in the user’s wallet.
* Their SNX balance becomes transferrable.

### ****The debt pool****

The system tracks the debt pool by issuing debt shares (a token) to stakers when they mint or burn sUSD. A staker’s debt percentage would be their balance of tokens divided by the total supply of debt shares.

Example:

Alice mints 100 sUSD, gets issued with 100 debt shares Bob mints 100 sUSD, gets issued with 100 debt shares Both Alice and Bob each have 50% of the debt shares (100 / 200 shares)

When the total debt pool value fluctuates, the shares will be used to calculate how much debt the minter owes. For example, if the debt pool now doubles to 400 sUSD, based on the above scenario:

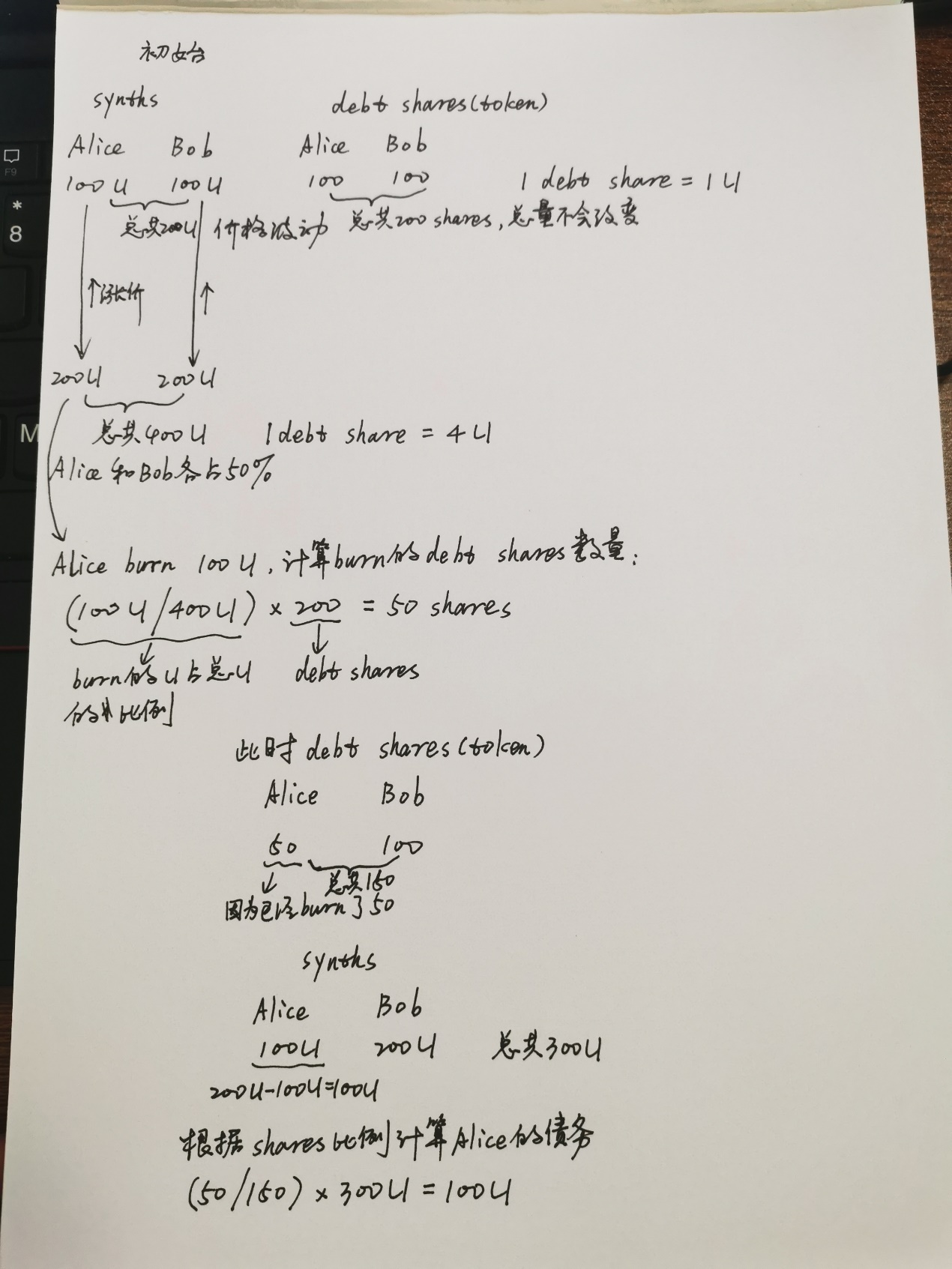
Alice who has 50% (100 shares), will have 200 sUSD debt Alice who has 50% (100 shares), will have 200 sUSD debt

Burning sUSD reduces the number of debt shares issued against a staker and the number of shares burnt is calculated with the total debt pool value. Continuing with the example above,

Example:

Alice now burns 100 sUSD, which burns (100 / 400) \_ 200 shares = 50 shares Alice would have 50 shares after her burn, ⅓ of the debt pool. Alice’s remaining debt will be (50 / 150 shares) \_ 300 = 100 sUSD

以上例子的笔记：



### ****Oracles****

The value of all synthetic assets in the Synthetix system is determined by oracles that push price feeds on-chain. It uses an algorithm with a variety of sources to form an aggregate value for each asset.

Read more about the use of oracles within the Synthetix protocol

[Oracles](https://docs.synthetix.io/synthetix-protocol/the-synthetix-protocol/oracles)

## Current Risks and Risk Mitigation Strategies

### ****Current risks****

There are several risks in the current architecture, as Synthetix is still an experimental system and complex systems require both empirical observations and theoretical analysis. Empirical observation and theoretical analysis ensure the mechanism design aligns incentives for all players.

One risk involves the debt SNX holders issue when they stake their SNX and mint Synths. As previously explained, this debt can fluctuate due to exchange rate shifts within the system. This means that to exit the system and unlock their staked SNX; they may need to burn more Synths than they originally minted.

Most people in the cryptocurrency space are aware of this risk, but the prices of most crypto assets are highly correlated to Bitcoin and/or Ethereum. This means it’s possible for major price fluctuations in the SNX token to occur for reasons that have little to do with SNX or the Synthetix system.

Finally, there are a number of aspects of the system that are currently centralized. This decision has been made to ensure the efficient implementation of the project. One example of centralization is the use of proxy contracts across much of the architecture. This is to ensure the system can be upgraded easily but confers a level of control to the engineering team which requires trust from users. While these aspects will be phased out over time, it is important to understand the risks inherent in the current system architecture.

### ****Risk mitigation strategies****

As a decentralized protocol, the Synthetix team is committed to decentralization and censorship resistance — this will be a gradual process as the system matures. This includes crucial areas such as our price feeds. Chainlink, reputable a provider of decentralized oracle solutions, supplies all oracles, and Synthetix does not rely on a centralized solution.

Another important area is governance, Synthetic has a system of councils that helps to oversee and govern the protocol. The Spartan Council, the key governing council of Synthetix, is elected by the community and decides which changes to the protocol are approved.

## Conclusion

Synthetix has already delivered one of the most complex and useful protocols built on Ethereum to date. But the potential for liquidity provisioning for complex derivatives across DeFi is untapped, and Synthetix is excited to deliver on this.