Quick Revision

RUNE | BTC (Asset)
Liquidity Pool

RUNE | BTC
RUNE | BTC
Liquidity Pool → Your Pool Ownership Calculated in Liquidity Units

Total Pool
Depth = $2M
BTC Price = $40,000
Rune Price = $10
1 BTC = 4000 RUNE

Share of the Pool
Total = $80,000
BTC = 1
Rune = 4,000
4% of the pool

100,000 RUNE | 25 BTC
Liquidity Pool

4000 RUNE | 1 BTC
96,000 RUNE | 24 BTC
Liquidity Pool → Pool Ownership Calculated in Liquidity Units

BTC → RUNE | BTC
Liquidity Pool → Liquidity Units

Reminder about Swap & Fees

RUNE → BTC → BTC

RUNE | BTC
BTC Liquidity Pool

Swapping is not 1:1
Slip Fee payable
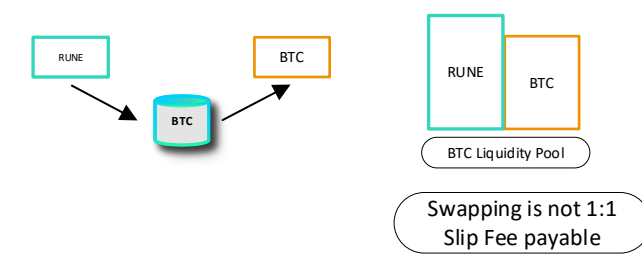
How Synths Work - Overview

BTC → RUNE | BTC
Liquidity Pool → Liquidity Units

BTC → RUNE | BTC
Liquidity Pool → Dynamic Liquidity Units → Synth Asset (BTC/BTC) (THOR.BTC)

BTC —part of Pool→ Synth Asset (THOR.BTC)

Minting

RUNE → BTC → BTC/BTC

BTC/BTC → BTC → RUNE → RUNE → BTC → BTC/BTC

Redeeming

BTC/BTC → BTC → RUNE

BTC/BTC → BTC → RUNE → RUNE → BTC → BTC/BTC
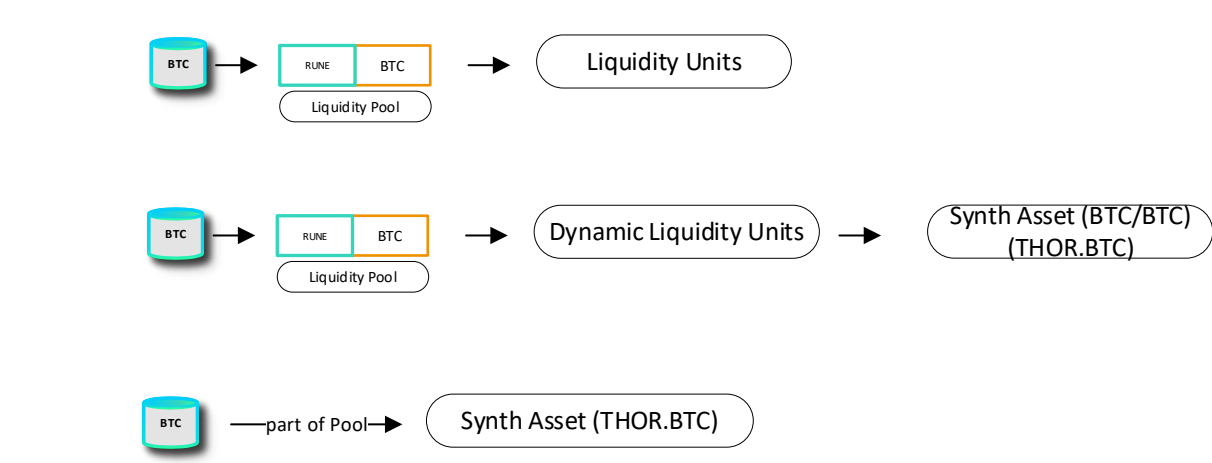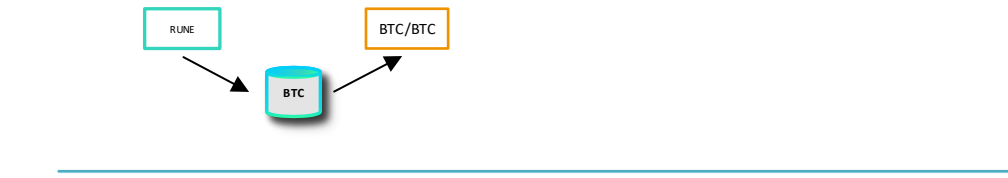
Synth Swap – BTC/BTC to ETH/ETH

BTC/BTC → BTC → RUNE → RUNE → ETH → ETH/ETH

Synth Vault

10 Synth → Synth Vault → 12 Synth

Synths can earn interest
E.g. 10 to 12 Synth
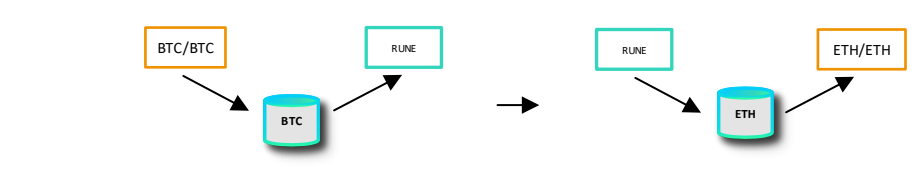
Synth Vault
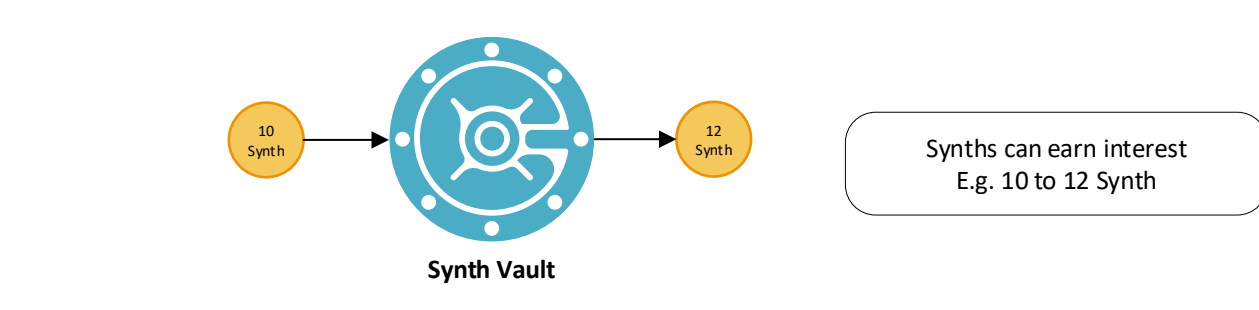
Minting, collateral and redemption

RUNE → BTC → BTC/BTC → BTC/BTC → BTC → RUNE

10 Rune → 0.5 Synth → 9.8 Rune

1000 Asset | 1000 RUNE
Liquidity Pool

Pool Units = Synth Units + Liquidity Units
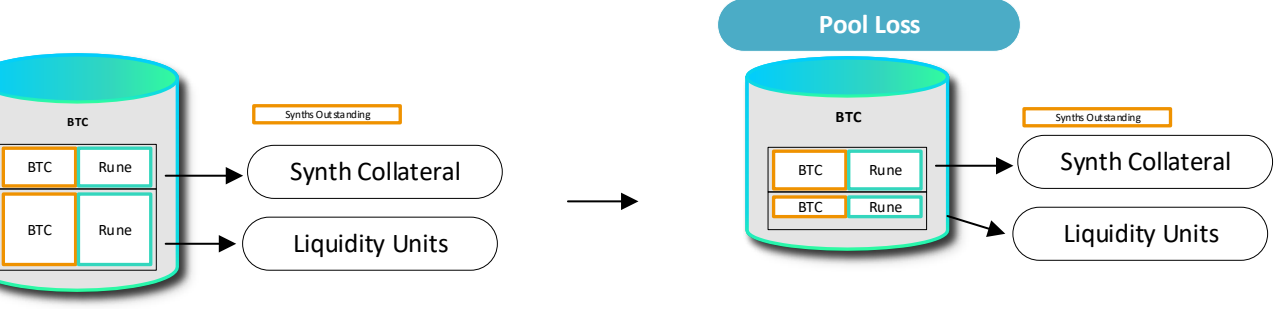
BTC
BTC | Rune
BTC | Rune
Synths Outstanding → Synth Collateral
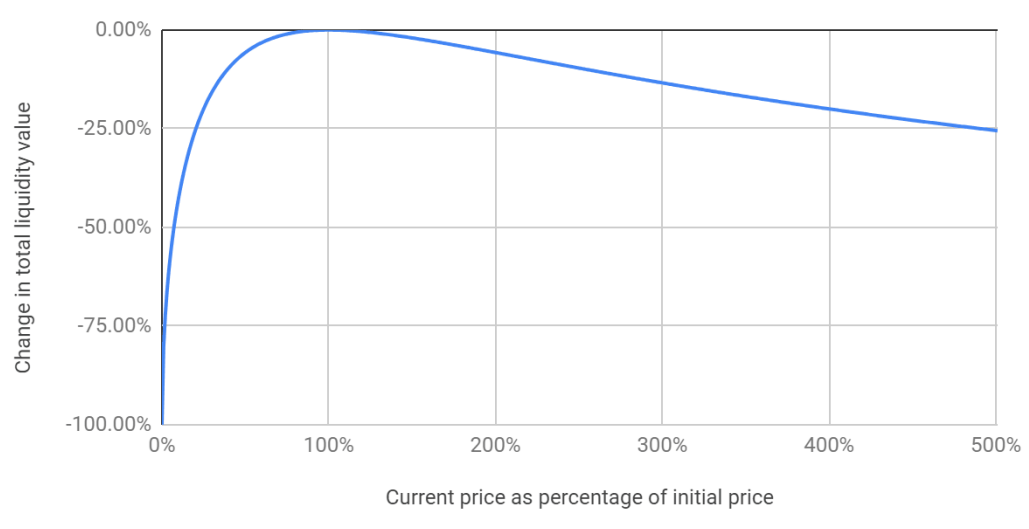→ Liquidity Units
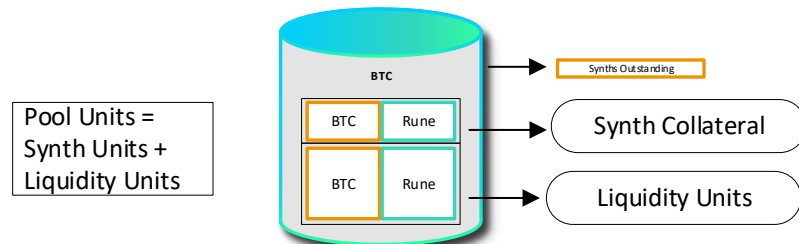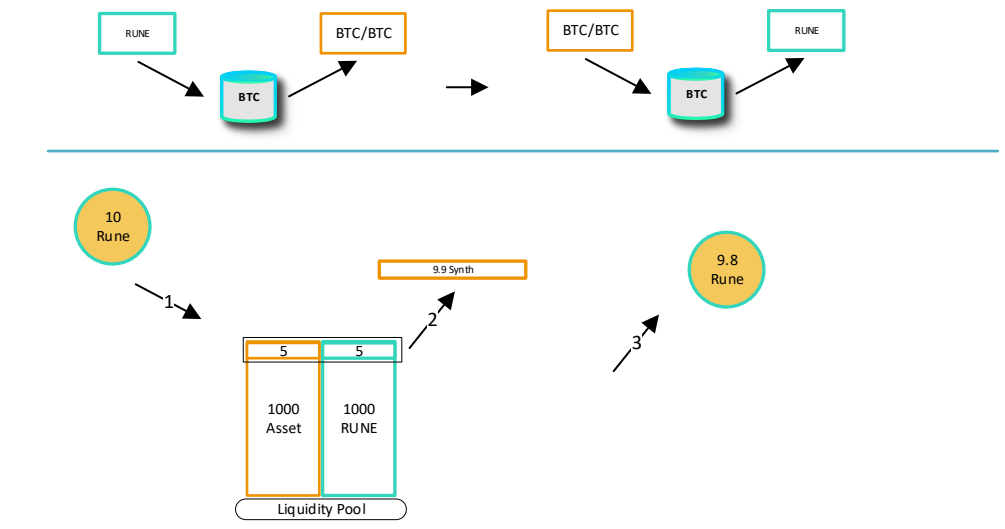
Why No Impermanent Loss?

"Synths are not subject to IL simply because the protocol honours the redemption value of the collateral, not the units behind them, which actually change dynamically"
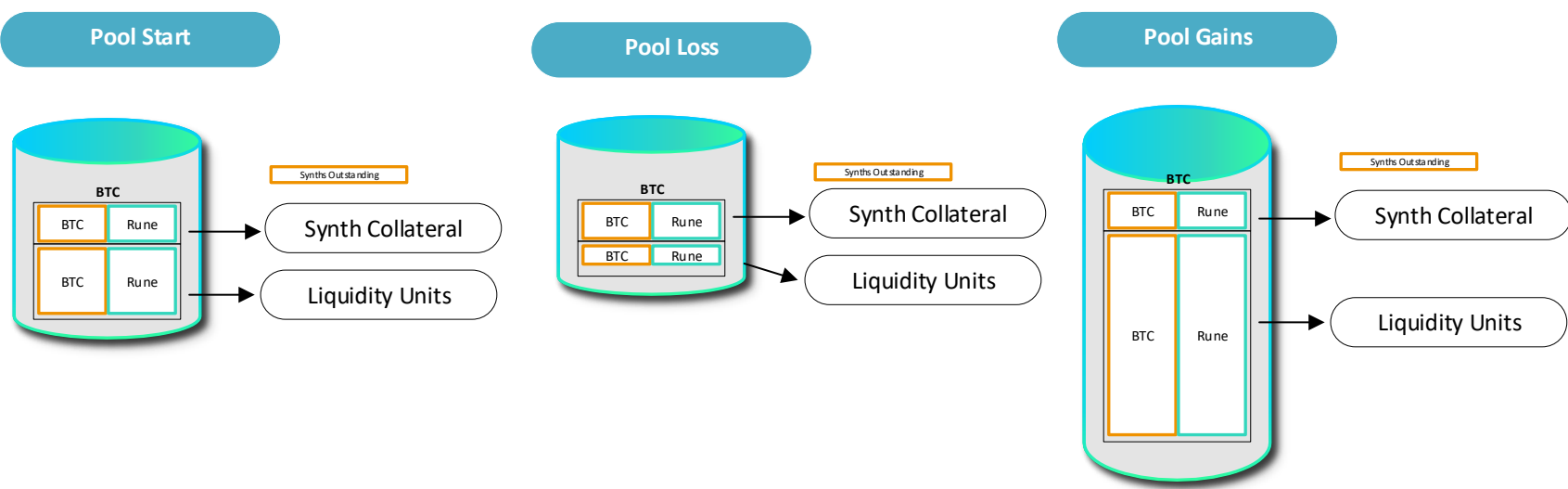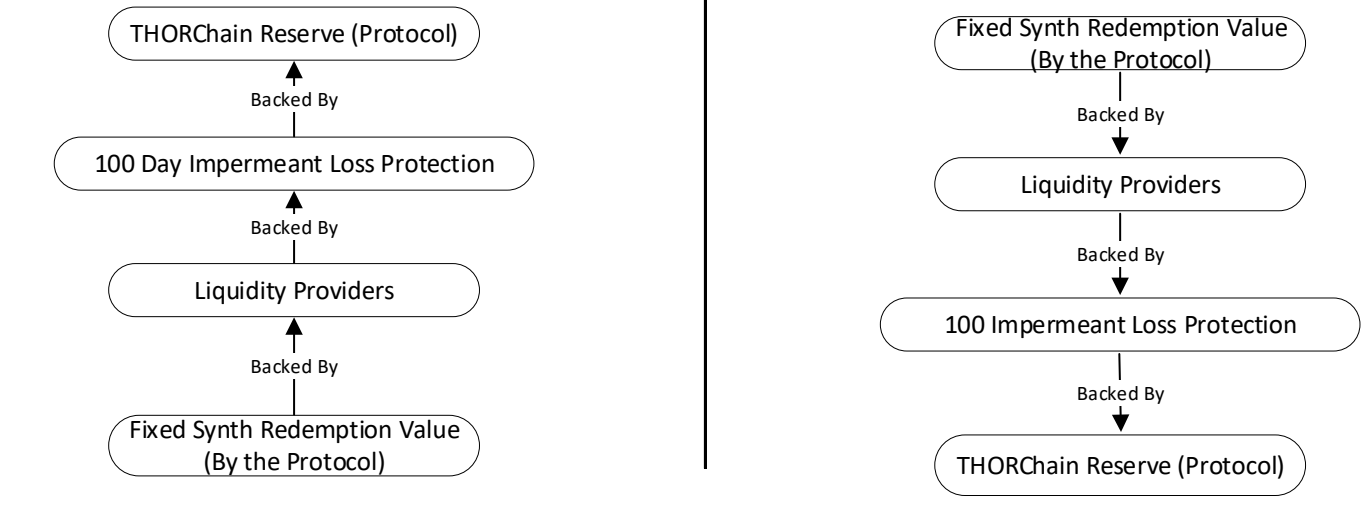
Pool Loss

BTC
BTC | Rune
BTC | Rune
Synths Outstanding → Synth Collateral
→ Liquidity Units

→

BTC
BTC | Rune
BTC | Rune
Synths Outstanding → Synth Collateral
→ Liquidity Units

Losses to liquidity providers due to price variation

Compared to holding the original funds supplied

Change in total liquidity value (y-axis: 0.00%, -25.00%, -50.00%, -75.00%, -100.00%)
Current price as percentage of initial price (x-axis: 0%, 100%, 200%, 300%, 400%, 500%)

Credit: https://tokentuesdays.substack.com/p/eliminating-impermanent-loss

Synth Risk Chain

THORChain Reserve (Protocol)
↑ Backed By
100 Day Impermeant Loss Protection
↑ Backed By
Liquidity Providers
↑ Backed By
Fixed Synth Redemption Value (By the Protocol)

Fixed Synth Redemption Value (By the Protocol)
↓ Backed By
Liquidity Providers
↓ Backed By
100 Impermeant Loss Protection
↓ Backed By
THORChain Reserve (Protocol)

Pool Start

BTC
BTC | Rune
BTC | Rune
Synths Outstanding → Synth Collateral
→ Liquidity Units

Pool Loss

BTC
BTC | Rune
BTC | Rune
Synths Outstanding → Synth Collateral
→ Liquidity Units

Pool Gains

BTC
BTC | Rune
BTC | Rune
Synths Outstanding → Synth Collateral
→ Liquidity Units

Transaction Fees

Asset in – no Change – 1x Tx Fee
Asset out – no Change – 3x Tx Fee

Synth In – 0.02 RUNE
Synth Out – 0.02 RUNE
Synth Swap – Inbound + Outbound = 0.04 Rune

Synths transactions are native THORChain transactions.

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