Introduction

Greetings TWO

I'm kassandra.eth and CTO of Arrakis, a DeFi protocol focused on trustless market making infrastructure and liquidity management tools, hoping to scale and drive efficiency to onchain markets.

When the Arrakis project was in it's infancy (back then we were known as G-UNI) we had a highly impactful MakerDAO integration, adding two collateral types to the Maker protocol to facilitate deep DAI/USDC liquidity and allow for (profitable) leveraged DAI/USDC LPing. At it's peak over 1.5 Billion DAI was generated off of these Arrakis collateral types. While debt ceilings are now 0 and those collaterals seem to be winding down, I'm here to propose a sketch of how Arrakis and Maker could continue to collaborate and support each other's efforts. This post is more of an offering and a first step towards finding out how Arrakis' sophisticated tools for deploying liquidity into Uniswap V3 (and eventually other dexs too) could be best used to support the efforts of SubDAO TWO.

About Arrakis V1 and V2

Arrakis V1 was a smart contract design that wrapped a Uniswap V3 concentrated liquidity position into a fungible ERC20 where liquidity could be aggregated from multiple LPs and the ERC20 trustlessly tracks each participants shareholdings of the shared Uniswap V3 position. Basically, deposit the correct proportions of token0 and token1 to mint more Arrakis LP shares, or burn some shares at any time to receive your fair proportion of token0 and token1 (liquidity & fees earned) from the Uniswap position. This ERC20 wrapper and shared position (everyone in the same position with the same position bounds) are what made a MakerDAO collateral type based on Uni V3 simple and acheivable. When Maker released GUNIV3DAIUSDC1-A this was a first of it's kind approach!

However our goal at Arrakis was never just to make public shared liquidity positions but to make active and dynamic concentrated liquidity strategies possible and accessible to all. Arrakis V2 is the contract design update we needed to make useful

active concentrated liquidity strategies a reality, and extends the Arrakis V1 design in a few key ways:

- Most importantly Arrakis V2 vaults are still an ERC20 wrapper around uniswap liquidity, but now instead of the vault containting a single

Uniswap V3 LP Position under the hood, the vault contains a collection

of Uniswap V3 positions on that token pair. The Arrakis vault position is thus a super-position of potentially a bunch of LP positions to create any desired liquidity distribution.

- As a consequence Arrakis V2 vaults support a liquidity strategy that can deploy capital across multiple fee tiers and can also strategically sideline some holdings off of the market (allows more flexible ways to manage inventory)

- Improved rebalance interface for a vault "manager" (could be a trusted entity but usually itself a smart contract) that makes it simple to reposition holdings and liquidity positions to efficiently express a complex and dynamic LP strategy (by repositioning liquidity when certain triggers are met). You can batch your operations and save a lot of gas wrt managing a bunch of Uni V3 NFTs manually (3 removals and 3 deposits of liquidity in one operation can be less than 1 million gas, saving up to 50%)

The core Arrakis V2 infrastructure is permissionless to build on top of and has no hidden fees. It's neutral public smart contract infrastructure that any LP or liquidity manager can leverage to manage their liquidity more effectively and with gas savings. Get more technical details here: https://docs.arrakis.fi/

Some Collaboration Opportunities for Arrakis and SubDAO TWO

Here I'll start from simple/straightforward ways Arrakis and Maker can collaborate and then get a bit more complex / forward looking.

- Arrakis LP tokens on Stablecoin<>Stablecoin pairs were a useful and simple primitive for Maker to leverage. Either with simple static Arrakis V1 ranges sized appropriately, or with a slightly more interesting and optimized liquidity distribution with an Arrakis V2 multiposition, we could use fungible Arrakis LP as a new DDM module for the Maker protocol. This way Maker can start to build up protocol owned deep liquidity on Stablecoin<>Stablecoin pairs of interest (e.g. DAI/USDC, DAI/USDT). This could be a great replacement to the very successful GUNIV3DAIUSDC collateral types which are now being wound down.

- Arrakis is currently working on the rollout of an exciting new LP vault offering on the ETH/USDC 0.05% Uniswap pool. It's a dynamic LP strategy that places "out of range" liquidity positions on both sides of the Uniswap price and seeks to capture profit not on fees but on the spread between these positions. Functioning more like a HFT in a central limit order book, these out of ranges orders are ejected when crossed and if a pair of orders both get filled and ejected the

vault books a concrete profit. Without diving too deep into the detail we believe this could be a lucrative and novel opportunity for LPs of all stripes to benefit from. While Arrakis LP tokens have been integrated as collateral before (in Maker and other protocols) until now the only Arrakis LP collateral integrations are stablecoin pairs and a simple static liquidity position. It would be really exciting to see our volatile LP token with an active strategy integrated in the Spark market to allow participants to e.g. borrow ETH off of this LP token and go leverage into the ETH/USDC Arrakis Vault.

- Finally Arrakis has built a product on top of Arrakis V2 called PALM (stands for Protocol Automated Liquidity Management) which targets token projects hoping to deploy POL and optimizes the LP strategy to service that projects specific needs and liquidity goals. One key issue with PALM is that protocols often have a large treasury of their own speculatvie asset but few "base" assets to pair it with to make the market. Potentially their might be opportunities to get DAI credit lines to pair the project's treasury with borrowed DAI to be able to facilitate a deep book with the Arrakis PALM vault from day 1. The details aren't really fleshed out here but something really interesting could be possible, a bit similar to "Liquidity As A Service" experiments we have already seen tried before in DeFi, but potentially much better!

Path Forward

This is just a preliminary post to elaborate Arrakis' unique functionalities and the ways that they could be synergistic with the products SubDAO TWO is building out. I'm really pumped about Spark and can't wait to see how it develops. Let's get the conversation going, and a more concrete proposal could follow.

I'll close with a quote from Frank Herbert's Dune

where both our project's names (Maker and Arrakis) feature prominently:

Bless the Maker [DAO] and his [liquidity]

Bless the coming and going of Him

May His passage cleanse the World

Let's make DeFi stronger together