Assessing Risk of Fuse Pool 182 (The Bank Vault)

Useful Links

- Rari Gov
- Rari Docs
- Rari Security
- Fuse Pool 182
- Pool Details and Metrics
- Fuse Pool Admin Guide
- Rari Safety Score Calculation

Context

As of April 20th 2022, DOLA is not listed on Fuse Pool 182. DOLA is presently listed in the following pools (see table below):

Fuse Pool	Name	Supplied	Asset Liquidity	Borrowed
6	Tetranode's Pool	\$8M	\$5.43M	\$2.57M
22	Badger Pool	\$2M	\$1.66M	\$340.2K
24	Harvest FARMstead	\$500k	\$277.6k	\$222.4k
127	0xB1's Kitchen Sink	\$770k	\$197.3k	\$572.7k
	тот	\$11.27M	\$7.56M	\$3.70M

GWG has a decision to make. Does it create new DOLA Fed and add \$DOLA liquidity to this pool?

As a reminder, admins control most all aspects of a Rari Fuse Pool. Some considerations,

- Admins keep all the Platform Fees generated
- If Admins deem the pool too risky, they could reduce the max LTV of DOLA (we have little to no say)
- Admins decide which assets to onboard, even if it a perceived threat/competition to us
- If not well maintained, pools run the risk of becoming insolvent. Insolvency can occur in a multitude of ways some of which are tied to mismanagement of onboarding assets, capital being pulled/overall lacking, loss of interest, to name a few.

Rug & Exploit Risk

Multi-Sig or 48 hour Time lock?: Yes

Admin: 0xf26d1Bb347a59F6C283C53156519cC1B1ABacA51

Upgradeable contracts: Yes

Price oracle: MasterPriceOracleV3

Liquidation Incentive: 10% (Above Rari Recommendation of 8%)

Close Factor: 50% (= Rari Recommendation)

Rari Safety Score

Rari is reworking their Safety Score mechanism

Pool 182 Details

of Assets: 7 (5 stablecoins)
Total USD Supplied: \$1.6M
Total USD Borrowed: \$526.2k

Utilization Rate: 32.4%

Top Utilized Assets: DAI (98.4%), UST (69.6%), Remaining Assets ~ 0%

Liquidations: 24

Table below summarizes current supply and utilization % for each asset:

Asset	Supply (\$)	Supply Cap (Y/N)	Utilization (%)	Borrowable?
BANK	995k	Yes	0	No
UST	251.1k	No	69.6	Yes
DAI	369.6k	No	98.4	Yes
ETH	771	No	0	Yes
USDC	0	No	0	Yes
FRAX	0	No	0	Yes
FEI	0	No	0	Yes

From first glance, this is a pool where the Bankless Team supplies BANK, and DAI and UST are borrowed. DOLA is a good market fit for this Fuse Pool.

Risks or other Concerns:

The risk team has identified \$BANK as the only non-conventional asset in the pool. A brief study follows:

Non-Conventional Collateral

This table lists the collateral that falls outside more conventional collateral like ETH or stablecoins:

Symbol	Market Cap	Collateral Factor	Reserve Factor	Total Supplied	Total Borrowed	Collateral Safety Score
BANK	\$12,304,272	40%	0%	~\$1M	0	0.43

BANK - BANK is the DAO's native governance token which coordinates activity and gets distributed to community members for active participation in this movement.

Assessment:

Rari Capital

Rari Capital can be deemed a safe protocol for Inverse to to work with/build on.

- RARI has been audited by three top tier Auditors: Quantstamp, Omniscia, and OpenZeppelin. These auditors have secured billions in funds and have a months-long backlog, meaning they are sought out in the industry. They each charge well over \$100,000 for their services.
- RARI has an active Bug Bounty Program with Immunify, an industry leader for Bug Bounties. They have posted a \$250,000 reward for critical severity issues, one of the highest rates you'll find in the market.

Fuse Pool 182

Rug & Exploit Risk:

Setup is comparable to most other Fuse Pools. Pool admins have set liquidation incentive at 10%, slightly higher than the recommended amount (8%). Close Factor is set to 50%. Overall no cause for concern.

Pool Statistics:

Liquidations are high relative to total supply. This is due to the volatile nature of the \$BANK asset. Borrow rates for DAI and UST are very high. No other asset is supplied. Bankless are eager to add DOLA to this pool for obvious reasons and it's likely DOLA would be borrowed if/once supplied.

Oracles of Collateral Assets:

Most all assets listed use Chainlink, with the exception of BANK, which utilizes Uniswap Twap.

\$BANK Price Oracle -

https://etherscan.io/address/0xCa1394570e25A123e3E297449a21075188d16e1a

Liquidity Stats:

Unconventional Assets	# Markets on Ethereum	# CEX	Deepest Liquidity (\$)	Total Liquidity on Ethereum	Liquidity/Market Cap Ratio
BANK	3	0	990k	2.14M	0.173

\$BANK has wETH trading pairs on Sushiswap, Uniswap, and Balancer. Considering liquidity alone, \$BANK poses a TWAP oracle exploit threat to the pool. To combat this, the Bankless Team has restricted the possible supply to the pool to (\$1M worth of \$BANK), and imposed a low CF (40%). As it stands, the total loan the DOLA pool can expect is in the low six figures, however it is likely the Bankless DAO will increase supply of \$BANK to accommodate for more DOLA borrowing. So long as Bankless DAO is ensuring that the \$BANK supply is close to full capacity, the risk of a price manipulation event/TWAP oracle exploit is significantly reduced. This is the case with Fuse Pool 24 and 127 as well, where it can be assumed that the vast majority of the governance tokens supplied to the pool is coming directly from the team.

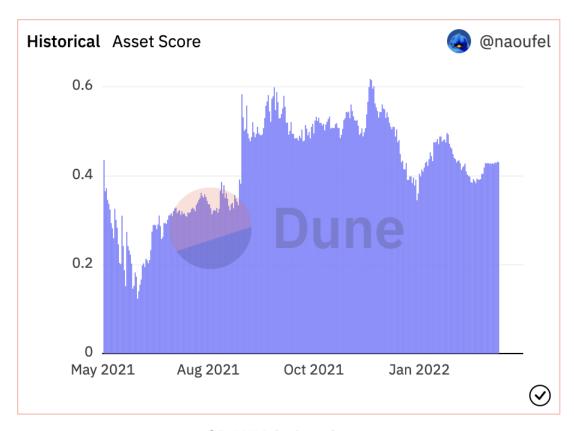
In general, Inverse should always recommend supply caps on lower liquidity TWAPS if not currently present. For assets with very low liquidity (less than \$1M), we recommend supply be capped at the depth of the underlying asset in the DEX with the most liquidity.

Collateral Stats:

- BANK - CF is appropriate at 40%. Reserves are set to 0%. Liquidation risk is present and historically this pool has seen 24, while the token price of BANK is down 80% from yearly highs. One can expect this trend of liquidations to continue.

Safety Scores:

\$BANK safety score is 0.43. As a reminder, per our in-house indicator, anything below 0.7 is receiving a 'failing' score. \$BANK scores particularly poorly in the market cap ratio and liquidity ratio components, which was expected given the information provided in the sections above.



\$BANK Safety Score

Recommendation:

Inverse should request that Pool admin always maintain a tight supply restriction for \$BANK, and that we personally be notified whenever this supply cap is altered. So long as \$BANK supplied to this pool is ~ the supply cap, most attack vectors will have been addressed. This could change if Pool admin adds new assets or changes the supply restrictions of \$BANK.

The \$BANK token itself poses a risk. Due to its low market cap and low liquidity, we can expect that price movements for this asset will be sudden and significant. This can be exploited, even internally from the Bankless DAO, and any liquidation that may occur as a result of it can be considered grounds for bad debt since Reserve Factor is 0%. A low CF (40%) allows for some degree of comfort that any liquidation could be repaid

In the current state of the Pool, the Risk Team would recommend a minimal injection of \$DOLA, with the expectation that the supply would be borrowed quickly. To provide a more tangible actionable, Risk team asks to be connected with Bankless DAO and gage interest/future plans Admins have for Pool 182.