

# Bezier Finance Whitepaper

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## **Abstract**

DeFi is not easy to use for inexperienced or non-technical people. Content creators answered partly to this problem by creating videos or charts on Twitter with Excalidraw. The problem: Excalidraw isn't made for this, schemas are inconsistent so the terms and figures aren't always the same, strategies are not easily accessible and understandable, and last but not least the presented strategies are temporary but the schema is permanent. Bezier Finance is a web tool (SaaS) allowing users to visually create and share DeFi strategies. Each strategy is represented by a flowchart built with blocks and contains on-chain data updated every day. A strategy starts and ends with a wallet block. You can operate on liquidity flows to create a precise and custom strategy.

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# 1 Introduction

Bezier Finance is a software as a service (SaaS) that started in October 2022. It was created to answer the main problem with decentralized finance currently: Accessibility. This problem discouraged users from using DeFi and instead they use centralized services increasing the risks of bankruptcy, reducing transparency, and ignoring blockchain and decentralization values.

## 2 Integrations

Bezier Finance is a multi-chain tool currently only supporting EVM-Compatible chains. To operate and provide a diversity of yields in the ecosystem Bezier is integrated with popular chains and protocols.

### 2.1 Chains

Bezier Finance supports 3 EVM compatible chains for the moment:

- Ethereum
- Polygon
- Avalanche

Those chains support a variety of popular protocols, even some protocols are on the three chains.

### 2.2 Protocols

Bezier Finance supports 10 protocols:

- Curve
- Uniswap V2
- Uniswap V3
- Aave V2
- Aave V3
- Beefy
- QiDAO / Mai Finance
- Lido
- Trader Joe
- Stake DAO

Those protocols provide a variety of yield methods and interactions.

## 2.3 Yields

On Bezier Finance a yield has inputs and outputs. Input is an asset type. An output has an asset type and a multiplier. This multiplier can be positive (e.g liquidity providing) or negative (e.g borrowing). A yield can have multiple inputs and outputs. Some inputs are optional and some outputs depend on the type of input. An input can have multiple outputs and the opposite. Let's take an example with the CRV liquid locker on Stake DAO<sup>1</sup>. This yield asks for input from either CRV or sdCRV<sup>2</sup>. And in output, you get 3CRV<sup>3</sup>, CRV and SDT<sup>4</sup>.

## 3 Use cases

### 3.1 Retail Investor

In most cases, if you want to generate an interesting yield with DeFi you have to use different mechanisms and protocols. Bezier helps you to create strategies including multiple protocols to visually understand how to combine multiple protocols to optimize the yield.

### 3.2 Content Creator

Content creators on Twitter and YouTube for example can create strategies and share them with their community so they can understand better the why? and how? of the strategy.

### 3.3 Education

Many pieces of training exist to explain DeFi to the rookies and no tooling exists already to study and teach DeFi.

### 3.4 CeFi transparency

Even if DeFi will be getting simpler with time. People will still want to use centralized services because they don't want to manage their funds. But those users still need transparency about how the service generates yield. Bezier can be used for this purpose.

## 4 Tools

Bezier Finance provides a complete toolset to create custom DeFi strategies. Bezier will represent the strategy's schema as a graph where each node is a tool

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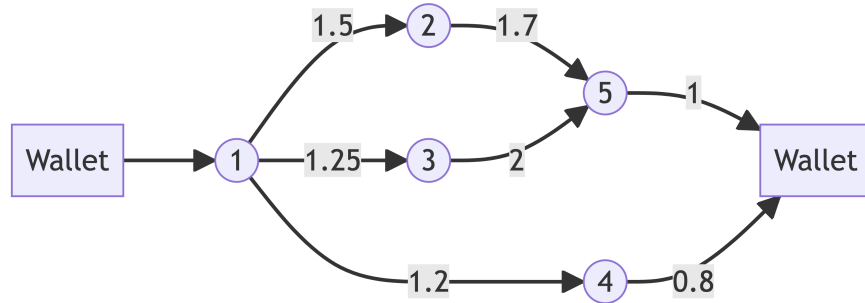
<sup>1</sup><https://lockers.stakedao.org/lockers/crv>

<sup>2</sup>liquid locker CRV token

<sup>3</sup>Curve LP Token for the USDT-USDC-DAI pool

<sup>4</sup>Stake DAO governance token

(except Text, Image, Arrow) and has  $n$  inputs  $n$  outputs and a  $x$  multiplier for each output.



#### 4.1 Wallet

A wallet includes multiple assets and is used to compute the global strategy APY. For this purpose two wallets are necessary, the initial (before strategy) and the final (after strategy). If a flow isn't linked to the final wallet, it won't be accounted for in the final APY calculation. This also forces strategy creators to have their own reward token policy (swap and compound, farm and sell, hold).

#### 4.2 Yield

The yield as described in the yields integration has inputs and outputs with a multiplier. To compute the global APY, all yields inner a flow will count.

#### 4.3 Compound

The compound tool sits on top of the yield tool. It increases the APY based on the number of times your compound the yield output in a year.

#### 4.4 Swap

The swap tool transforms one token into another respecting the price ratio.

#### 4.5 Unwrapper

The Unwrapper tool can wrap or unwrap a Liquidity Token to the underlying tokens or the opposite. (e.g 3CRV to DAI, USDC, USDT)

## 4.6 Math

The math tool operates simple calculus on a flow.

### 4.6.1 Split

The Split tool is a math tool that splits a flow of an asset to  $n \in \mathbb{N}$  equal flows.

### 4.6.2 Join

The join tool is the opposite of the split tool, it outputs a single flow from multiple flows from the same asset.

## 4.7 Arrow

The arrow is the essential tool for Bezier, it represents the 'flow' mentioned earlier and links tools together. Has an origin and a destination.

## 4.8 Image

Shows an image on the canvas.

## 4.9 Text

Custom text on the canvas.

# 5 Subscription plan

The alpha release will only include a single subscription plan at 15\$/mo. When other plans will be added this plan will be the highest available plan. See Roadmap.

# 6 Architecture

## 6.1 Frontend

Our frontend is made with React<sup>5</sup> and TypeScript<sup>6</sup> and runs on Vercel<sup>7</sup>.

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<sup>5</sup><https://reactjs.org>

<sup>6</sup><https://typescriptlang.org>

<sup>7</sup><https://vercel.com>

## 6.2 Backend

Every day, at 3 a.m. our on-chain scraper written in Golang queries on-chain, the graph<sup>8</sup> and API data. The data is then registered on our GitHub repo<sup>9</sup> it is also replicated on our custom S3<sup>10</sup>.

## 6.3 On-chain

The current version of Bezier does not need on-chain computation, which will be needed for the 1 click strategy. See Roadmap.

## 6.4 Payment

Bezier will be using Superfluid<sup>11</sup> to handle subscriptions, this allows the user to pay only for its usage of Bezier.

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<sup>8</sup><https://thegraph.com/en/>

<sup>9</sup><https://github.com/bezier-fi/data>

<sup>10</sup>Common protocol for storing files, JSON in our case, popular with AWS

<sup>11</sup><https://www.superfluid.finance/>

## 7 Roadmap

### Q1 2023

- Launch alpha version

### Q3 2023

- Add more chains
  - Arbitrum
  - Optimism
- Add more protocols
  - Convex Finance
  - Instadapp
  - Compound
  - Balancer
  - Radiant
  - Velodrome

### Q1 2024

- Social Portfolio

### Q2 2023

- Integrated social media with Lens Protocol

### Q4 2023

- apply strategy with one click
- from address to strategy