StableOps

Team Members

Name	email
Quintin Bland	quintinbland2@gmail.com
Kevin Corstorphine	kevincorstorphine@gmail.com
John Gruenewald	john.h.gruenewald@gmail.com
Martin Smith	msmith92663@gmail.com
Yanick Wilisky	yanickw@gmail.com

Project Description / Outline

The objective of this project is to analyze volatility in stablecoin pricing and assess whether this volatility could provide profitable arbitrage opportunities. Analysis will include:

- volatility analysis of stablecoins
- cost analysis associated with trading stablecoins
- risk / reward analysis of stablecoin arbitrage
- simulation of stablecoin arbitrage profitability projections

Questions to Answer

- Can the volatility of stablecoin pricing yield sufficiently profitable arbitrage opportunities?
- Is the volatility of stablecoins pegged to the US Dollar similar or are some stablecoins more volatile than others?
- Are the volatilities short lived or persistent?
- Are there any correlations between the volatility of various stablecoins?
- Do some pairs yield better arbitrage opportunities?
- Are the risk, effort and costs associated with stablecoin arbitrage worth the potential reward?

Datasets to be used

- Daily stablecoin pricing data spanning several years
- Intraday stablecoin pricing data
- Alpaca API for additional stablecoin pricing information

Rough breakdown of tasks

- Research and identify a selection of stablecoins pegged to the US Dollar
- Identify data sources for daily stablecoin pricing data, with 4 years of data
- Identify data sources for intraday stablecoin pricing data
- Research and analyze stablecoin trading costs
- Characterize and perform quantitative analysis of stablecoin volatility for selected stablecoins
- Risk/Reward (Sharpe Ratio) analysis of stablecoin arbitrage
- Montecarlo simulations to project future gains of stablecoin arbitrage
- Presentation preparation
- Project documentation
- Team formation / organization