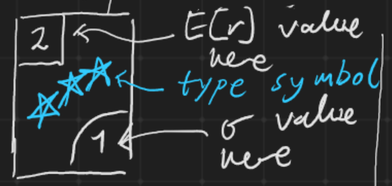
Sharpe Trader

A GAME DESIGNED BY STATHI AUDIS

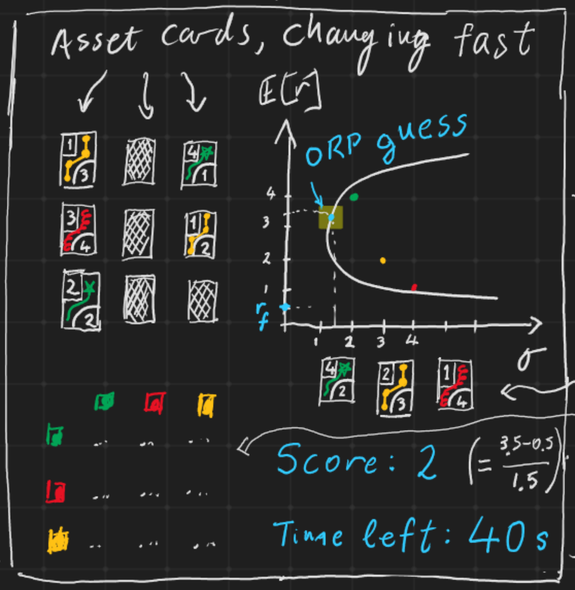
A "Sharpe-ratio maximization" game with assets represented by trading cards

Game Rules

- Player forms portfolios of assets by picking up trading cards showing asset type, E[r] & σ
- Can only hold up to a certain # cards, depending on level. Can discard cards to pick up others.
- Game shows mean-var frontier of current portfolio; Player chooses a point on the frontier every time s/he picks up a new card or replaces an old one



- Score = Sharpe ratio of chosen point on frontier
- Game over when clock ends



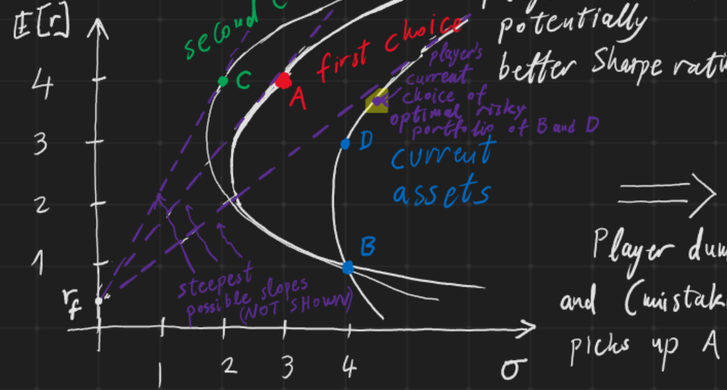
EXAMPLE GAME SCREEN

Current portfolio

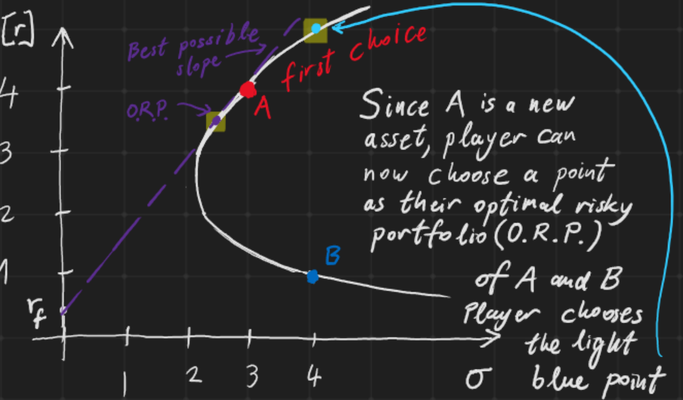
Correlations between assets of different types, shown as a matrix (VALUES SET BY YOU)

Score & time left

Level 1: Up to two assets only, four cards shown. Example ("Easy")

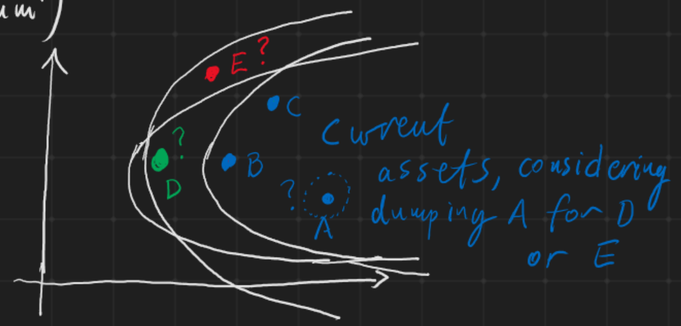


Player dumps D, and (mistakenly) picks up A



Level 2: Up to three assets only, nine cards shown ("Medium")

Example:



Hint: For more than two assets, you can Monte Carlo the frontiers offline and store them in a file. Alternatively, you can use matrices, as shown in the boss-level excerpts (See explanation on p.3 of the OPT recodings)

Level 3: Up to four asset, sixteen cards shown ("Hard")