

Date

10/1/18

Discussion:

- Investments by Bodi Kane Marcus
 - Good book about the basics of investing
- Focus mainly on Markowitz moving forward. BL later due to its complexity and reliance on Markowitz anyways
- Python Package - cvxpy
 - Good package to look into using for data science
- Objective function
 - Maximize return
- Constraints
 - I.e. (w (weight) of industrial properties ≤ 0.30 or w of Houston apartments ≤ 0.40)
- Data Inputs
 - R (vector of returns, provided by user/database)
 - This will be provided externally to the program
 - We are **NOT** trying to solve this, this is a huge project on its own
 - For now, we can use a made up vector provided by the user
 - Sigma (ie, 500x500 matrix)
 - Covariance
 - (calculate for now maybe using last 10 years of data, but its more complicated)
- Decision Variables
 - Total Return (For cumulative)
 - Market Name
 - Property Type
 - Time Period of Choice