

Math 420, Spring 2013

First Group Homework

due Monday, 18 February, 2013

Exercise 1. Compute the efficient frontiers for the risky assets in group (A), group (B), and groups (A) and (B) combined using one-year histories with uniform weights and daily data for the years ending July 1 of 2007-2012. Graph them along with the volatility and return rate means of each asset for each year, and for portfolios that are equidistributed in each group. There should be 6 graphs — one for each year. Use different symbols to distinguish points associated with group (A) from those associated with group (B). Comment on any relationships you see between the objects plotted on each graph. (This will be easier to do if you use the same scales for each of the graphs. Each σ -axis should begin at $\sigma = 0$.)

Exercise 2. Give \mathbf{f}_{mv} for each of the frontiers computed in Exercise 1. Comment on how these change from year to year for the same groupings of assets.