Due date: 04/11/06 before the start of exam

Q1. Do question 1 at the end of Chapter 6

Q2. Do question 3-4 at the end of Chapter 6 (Q4-Q5 in Version 5)

(see the spreadsheet on course website for help – excel_example3.xls)

Q3. Do question 6-10 at the end of Chapter 6

(hints: see the spreadsheet on course website for help – excel_example3.xls. Use an increment smaller than suggested in the book for better graphs and identification of minimum variance portfolio and the optimal risky portfolio, say 5% increment. While we did not discuss them in class, the formula for weight of GMVP portfolio is

\[ w_{\text{Min}}(S) = \frac{\sigma_B^2 - \text{Cov}(r_S, r_B)}{\sigma_S^2 + \sigma_B^2 - 2 \text{Cov}(r_S, r_B)} \]

and the formula for the weight of optimal risky portfolio is

\[ w_{\beta} = \frac{\sigma_B^2 (E[r_B] - r_f) - \rho \sigma_S \sigma_B (E[r_S] - r_f)}{\sigma_S^2 (E[r_B] - r_f) + \sigma_B^2 (E[r_S] - r_f) - \rho \sigma_S \sigma_B (E[r_S] + E[r_B] - 2r_f)} \]

check your results from looking at the graph against the exact solutions based on the formulas above.)

Q4. Do question 11 at the end of Chapter 6

Q5. Do question 12 at the end of Chapter 6

Please show your work for multiple choice questions.