

Seminar on 17.04.2018 by Dr. Dagmar Linnertova

Ex 1.

Please use the closing prices of given stocks to create a portfolio according to the minimum variance approach and then find the weights for tangency portfolio. After, calculate what will be the expected return of the portfolio and the risk. Which portfolio is a better investment for a rational investor?

Ex 2.

Security	β	r_i
S1	1,75	16,7
S2	1,20	24,0
S3	1,30	17,4
S4	0,75	16,0
$r_f = 7\%$		$r_M = 15\%$

From the above information calculate the parameter δ .

Create SML for the securities.

Using the concept of SML decide what should you do with particular security as a rational investor?
(Buy, sell, or hold)

Ex 3.

Year	Market	Security 1
1	8,0	8,1
2	0,0	3,0
3	14,9	5,3
4	5,0	1,0
5	4,1	3,1
6	8,9	3,0
7	10,1	5,0
8	5,0	3,2

9	1,5	1,2
10	2,4	1,3

Create a scatter plot where on the X-axis are returns of the market and on the Y-axis returns of Security 1 and add a trend line with equation. Further, calculate the parameter α and β and use:

1. The function in Excel (Lines)
2. Use matrix calculation

You know from the Money market that the $r_f = 2,7\%$ p.a. and you assume 250 trading days.