

$R_f = 0,04, \quad 0.04$   
 $R_M = 0,10 \text{ a} \quad 0.1$   
 $\sigma_M = 0.09 \quad 0.09$

Rp

Rf            Market  
               0        0.09  
 sigma        0.04      0.1  
 return

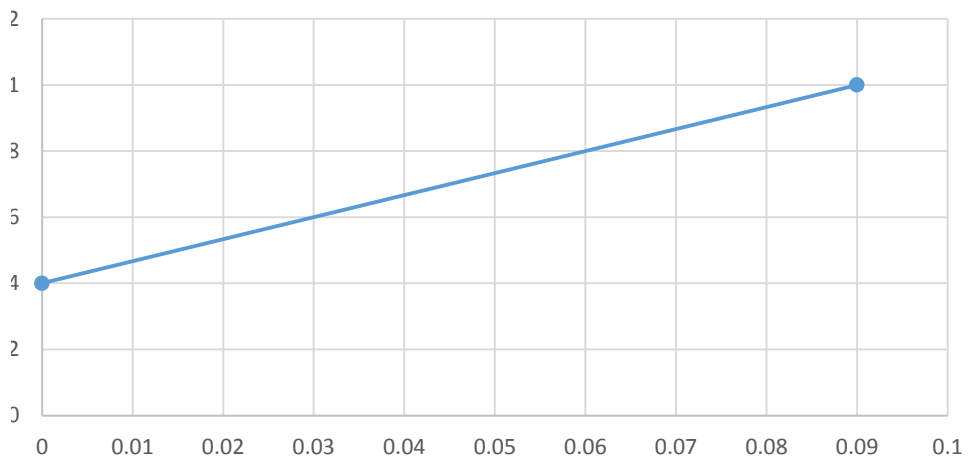


CML

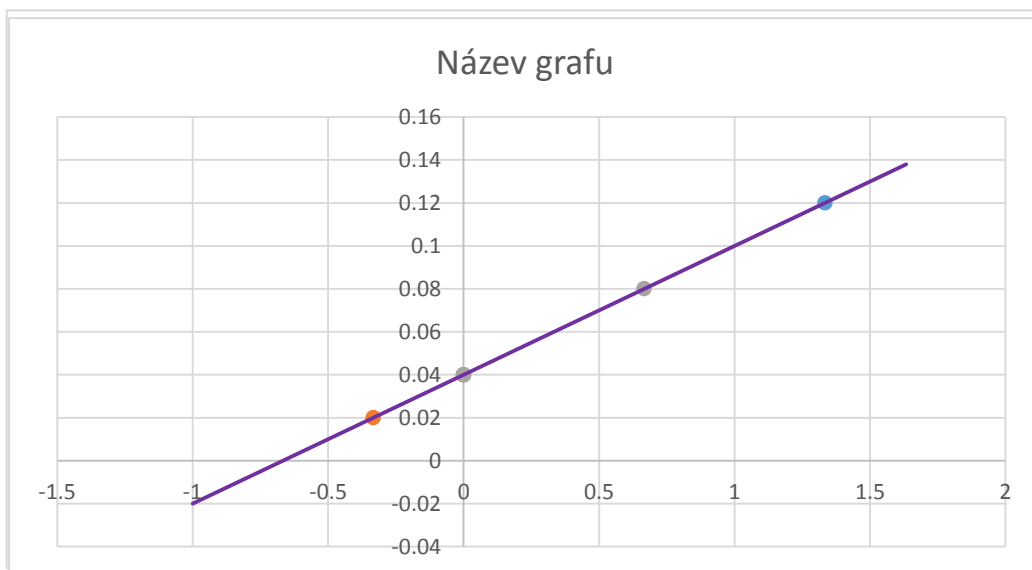
SML

	beta_i	re	Rf	Security_1
$\sigma_{1,M} = 0.0108$	1.333333	0.12	0	1.333333
$\sigma_{2,M} = -0.0027$	-0.333333	0.02	0.04	0.12
$\sigma_{3,M} = 0.0054$	0.666667	0.08		
Sigma_M	0.09	1		
SML1	1.333333	0.12	Rf	Security_1
	0	0.04	beta	0 -0.333333
			return	0.04 0.02
SML2	-0.333333	0.02		
	0	0.04		
SML3	0.666667	0.08	Rf	Security_1
	0	0.04	beta	0 0.666667
			return	0.04 0.08

CML (CAPM)

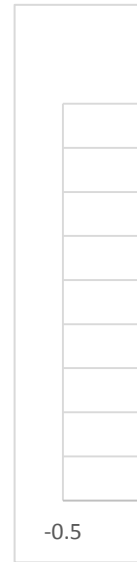


Název grafu

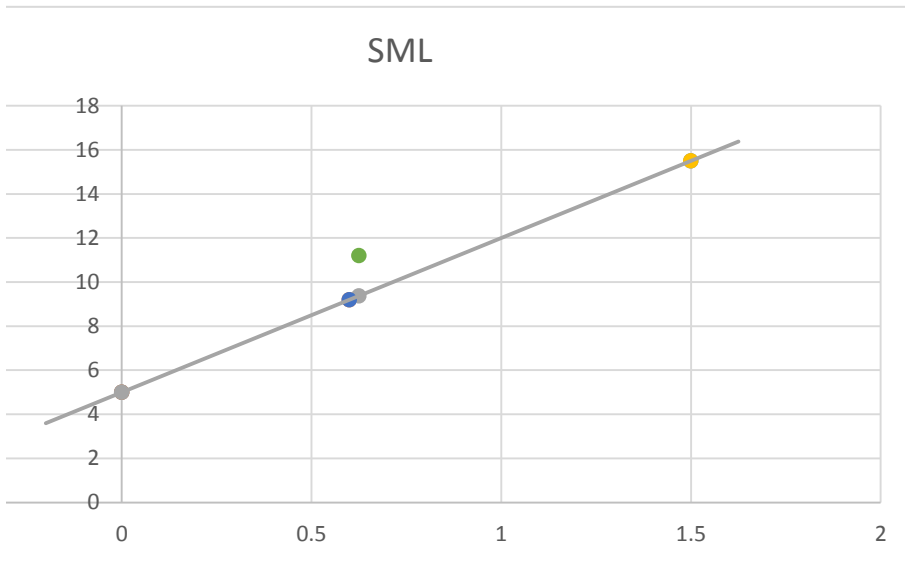


	$r_i$	correlation a M	$\sigma_i$
<b>S1</b>	15.5	0.9	20
<b>S2</b>	9.2	0.8	9
<b>S3</b>	11.2	0.5	15
<b>MP</b>	12	1	12
<b><math>r_f</math></b>	5	0	0

$r_{e_i}$	$cov_i$	$\beta_i$		$\beta_i$	$r_i$
15.5	216	1.5	S1	0	5
9.2	86.4	0.6		1.5	15.5
9.375	90	0.625			
	144	1			
			S2	0	5
				0.6	9.2
			S3	0	5
				0.625	9.375



	beta_i	return	Re	Delta
S1	1.5	15.5	15.5	0
S2	0.6	9.2	9.2	0
S3	0.625	11.2	9.375	1.825



Day	A	B	C	D	E	Market Ind	A	B
1	570	98.4	669.1	53.9	103.5	333.4		
2	569	98.2	715	53.8	103	338.9	-0.001755927	-0.00203
3	563.8	96.6	725	53.2	101.9	346.8	-0.009180855	-0.01643
4	575.3	96.5	716	53.9	100	347.8	0.020192065	-0.00104
5	595.1	97	725	55.6	101.6	350.9	0.033837815	0.005168
6	602.8	98.4	727.5	57	101.2	348.1	0.012856008	0.01433
7	601.8	99	716.6	54.7	102	349.4	-0.001660303	0.006079
8	601.3	105.4	721.5	55.6	101.6	354.2	-0.000831186	0.062643
9	614.8	116.9	718.6	55.9	101.7	361.1	0.022203034	0.103556
10	628.1	119.6	717.8	56.5	100.5	372.7	0.021402378	0.022834
11	629	113.2	729.5	56.4	103.4	371.6	0.001431867	-0.055
12	618.6	109.5	702.6	54.9	102.3	395.9	-0.016672396	-0.03323
13	638	105	750.8	55	102.8	397.6	0.030879423	-0.04196
14	656	104.9	789.7	56.6	99.8	406.1	0.027822506	-0.00095
15	662	105.3	799.1	56.9	101.4	400.7	0.009104767	0.003806
16	669.4	105.7	805	56	100.9	396.6	0.011116233	0.003791
17	700.7	108.5	870	56.7	95.3	398.2	0.045698047	0.026145
18	709	110.3	937.6	57	65.7	400.9	0.011775691	0.016454
19	713	112.6	948.8	56.8	99.4	399.1	0.005625894	0.020638
20	708	113.9	951.5	56.5	99.2	401.1	-0.007037327	0.011479

				E(ri)	0.011410933	0.007699
	beta_i			Cov_i,M	-7.66363E-05	-2E-05
		p.a.	p.d.	beta_i	-0.246231127	-0.06446
	rf	0.03	0.000119	re_i	-0.00224744	-0.0005
				delta	0.013658373	0.008199

C	D	E	Market Index
0.066349	-0.00186	-0.00484	0.016362
0.013889	-0.01122	-0.01074	0.023043
-0.01249	0.013072	-0.01882	0.002879
0.012491	0.031053	0.015873	0.008874
0.003442	0.024868	-0.00394	-0.00801
-0.0151	-0.04119	0.007874	0.003728
0.006815	0.016319	-0.00393	0.013644
-0.00403	0.005381	0.000984	0.019293
-0.00111	0.010676	-0.01187	0.031619
0.016168	-0.00177	0.028447	-0.00296
-0.03757	-0.02696	-0.0107	0.063344
0.066352	0.00182	0.004876	0.004285
0.050514	0.028676	-0.02962	0.021153
0.011833	0.005286	0.015905	-0.01339
0.007356	-0.01594	-0.00494	-0.01028
0.077651	0.012423	-0.0571	0.004026
0.07483	0.005277	-0.37193	0.006758
0.011875	-0.00351	0.414053	-0.0045
0.002842	-0.0053	-0.00201	0.004999
0.018532	0.002479	-0.00223	0.00973
-0.00014	-5.8E-05	-0.00035	0.000311
-0.46036	-0.18606	-1.12845	1
-0.00431	-0.00167	-0.01073	0.00973
0.022837	0.004149	0.008493	0

beta	alfa
-0.24623	0.013807
0.216607	0.004275
0.070644	0.016213
1.292229	17
0.00034	0.004468

Covar\_M

0.000267	0.000122	0.000257	0.00019	-0.00025
0.000122	0.001223	-0.00011	0.000168	-1.4E-05
0.000257	-0.00011	0.001071	0.000203	-0.0015
0.00019	0.000168	0.000203	0.00033	-0.00026
-0.00025	-1.4E-05	-0.0015	-0.00026	0.017557

0.000534	0.000245	0.000514	0.000381	-0.00051	1
0.000245	0.002447	-0.00021	0.000337	-2.7E-05	1
0.000514	-0.00021	0.002143	0.000407	-0.00299	1
0.000381	0.000337	0.000407	0.000659	-0.00052	1
-0.00051	-2.7E-05	-0.00299	-0.00052	0.035114	1
1	1	1	1	1	0

Invert.Matrix

3135.688	-308.358	-723.904	-2041.71	-61.714	0.518336
-308.358	450.2518	127.2655	-269.301	0.141659	0.091635
-723.904	127.2655	713.6363	-162.924	45.92632	0.073796
-2041.71	-269.301	-162.924	2488.709	-14.7721	0.285904
-61.714	0.141659	45.92632	-14.7721	30.41821	0.030329
0.518336	0.091635	0.073796	0.285904	0.030329	-0.00043

lambda

proof

VRS

0	wi	0.518336137	0.091635	0.073796	0.285904
0					
0		7.17675E-05	5.81E-06	9.84E-06	2.82E-05
0		5.8127E-06	1.03E-05	-7.2E-07	4.41E-06
0		9.83657E-06	-7.2E-07	5.83E-06	4.29E-06
1		2.81979E-05	4.41E-06	4.29E-06	2.69E-05
		-3.9777E-06	-3.8E-08	-3.3E-06	-2.3E-06

wi	E(ri)	Rp	Var(p)	Sigma(p)
0.518336	0.011411	0.008629	0.000215	0.014676
0.091635	0.007699			
0.073796	0.018532			
0.285904	0.002479			
0.030329	-0.00223			
-0.00043				

1



0.030329

-4E-06

-3.8E-08

-3.3E-06

-2.3E-06

1.62E-05