

Jméno a Příjmení:	Rega Hofová
Typ studia:	Kombinovaná
Program:	Ekonomika podnikání v obchodě a službách
Obor:	Ekonomika a management
Os. Číslo:	o137777

B = od 27.05.2015 z 90 obchodovatelných dnů
PF-35 dnů

Denní ceny akcií na BCPP

	datum obchodování	O2 C.R. - BAATELEC	PEGAS NONWOVENS SAA - BAAPEGAS	PLG - BAAPLG
1	<u>5/27/2015</u>	177.6	772	179
2	<u>5/28/2015</u>	177.6	790	178
3	<u>5/29/2015</u>	177.6	800	179.15
4	<u>6/1/2015</u>	69.2	829.8	179
5	<u>6/2/2015</u>	71	811.9	179
6	<u>6/3/2015</u>	75.95	810	179.1
7	<u>6/4/2015</u>	78.8	806	192
8	<u>6/5/2015</u>	81.35	804	189.95
9	<u>6/8/2015</u>	83.05	802.6	188.5
10	<u>6/9/2015</u>	87.05	815	194
11	<u>6/10/2015</u>	88	823	191.9
12	<u>6/11/2015</u>	90.5	820.9	190.1
13	<u>6/12/2015</u>	90.1	806	191
14	<u>6/15/2015</u>	94.55	809.4	191.7
15	<u>6/16/2015</u>	96	808.9	189.7
16	<u>6/17/2015</u>	97	819.9	191
17	<u>6/18/2015</u>	96	817	190.05
18	<u>6/19/2015</u>	94.5	829	189.2
19	<u>6/22/2015</u>	97	819	189.1
20	<u>6/23/2015</u>	97.6	810	190.4
21	<u>6/24/2015</u>	98.3	807	189.2
22	<u>6/25/2015</u>	101.6	807.9	189.2
23	<u>6/26/2015</u>	99.5	817.9	188.5
24	<u>6/29/2015</u>	98.5	791.4	188.5
25	<u>6/30/2015</u>	97.5	826	188.5
26	<u>7/1/2015</u>	100.2	823.4	190.4
27	<u>7/2/2015</u>	101.4	824.9	190
28	<u>7/3/2015</u>	101	813.4	190
29	<u>7/7/2015</u>	101.5	806.1	188.95
30	<u>7/8/2015</u>	101.4	807.6	188.55
31	<u>7/9/2015</u>	100.9	806	190
32	<u>7/10/2015</u>	100.65	804	190.8
33	<u>7/13/2015</u>	101.65	809.9	189.5
34	<u>7/14/2015</u>	102.3	815	190
35	<u>7/15/2015</u>	104.05	815	190
36	<u>7/16/2015</u>	112.5	815	190.4
37	<u>7/17/2015</u>	125.95	826.9	190.8
38	<u>7/20/2015</u>	126.3	828	190.5
39	<u>7/21/2015</u>	128.55	827	190.5
40	<u>7/22/2015</u>	122.4	828	191.9
41	<u>7/23/2015</u>	120.15	832.7	190.6
42	<u>7/24/2015</u>	129.3	832	192
43	<u>7/27/2015</u>	137.6	835	190.55
44	<u>7/28/2015</u>	140.6	833	192

45	<u>7/29/2015</u>	140.3	837	192.5
46	<u>7/30/2015</u>	144.65	830	193.7
47	<u>7/31/2015</u>	143.6	818	194.2
48	<u>8/3/2015</u>	145.3	811	194.1
49	<u>8/4/2015</u>	145.75	811	193.7
50	<u>8/5/2015</u>	146	807.4	194.85
51	<u>8/6/2015</u>	145.15	821.1	194.95
52	<u>8/7/2015</u>	143.5	817.1	194.8
53	<u>8/10/2015</u>	144.1	824.8	193
54	<u>8/11/2015</u>	145.15	830	193.25
55	<u>8/12/2015</u>	150	832.8	193.5
56	<u>8/13/2015</u>	162.8	849	195.9
57	<u>8/14/2015</u>	158.5	930	195.95
58	<u>8/17/2015</u>	157.75	933.4	195.75
59	<u>8/18/2015</u>	158	951	195.9
60	<u>8/19/2015</u>	159.35	953	192.5
61	<u>8/20/2015</u>	162.5	939.8	193
62	<u>8/21/2015</u>	163.5	930	193.3
63	<u>8/24/2015</u>	170	882.8	187.6
64	<u>8/25/2015</u>	192	934	187.65
65	<u>8/26/2015</u>	201.5	930.8	190
66	<u>8/27/2015</u>	216	928.4	194.9
67	<u>8/28/2015</u>	227.1	929.9	191.7
68	<u>8/31/2015</u>	233	919.9	194.9
69	<u>9/1/2015</u>	224.8	892.3	197.2
70	<u>9/2/2015</u>	215	889	195.2
71	<u>9/3/2015</u>	219	895	196.9
72	<u>9/4/2015</u>	216.2	897	196.8
73	<u>9/7/2015</u>	218.3	890	199.2
74	<u>9/8/2015</u>	218.1	895	199
75	<u>9/9/2015</u>	219.9	898	199.8
76	<u>9/10/2015</u>	222.80	895.00	197.90
77	<u>9/11/2015</u>	223.50	890.10	199.95
78	<u>9/14/2015</u>	223.00	897.50	200.00
79	<u>9/15/2015</u>	226.20	896.60	204.50
80	<u>9/16/2015</u>	228.60	893.00	205.00
81	<u>9/17/2015</u>	227.00	900.00	203.60
82	<u>9/18/2015</u>	222.70	887.50	205.10
83	<u>9/21/2015</u>	222.00	886.50	205.10
84	<u>9/22/2015</u>	221.20	870.00	205.00
85	<u>9/23/2015</u>	216.20	866.00	203.90

86	<u>9/24/2015</u>	215.10	863.00	203.40
87	<u>9/25/2015</u>	215.50	860.00	204.00
88	<u>9/29/2015</u>	212.90	862.90	205.60
89	<u>9/30/2015</u>	213.00	859.50	204.00
90	<u>10/1/2015</u>	213.00	867.90	203.20

35-denní výnosy

PHILIP MORRIS ČR - BAATABAK	STOCK SPIRITS GROUP - BAASTOCK
10870	76.2
10859	75.3
10860	75.3
10888	75.65
10849	76
10749	75.2
10783	74.9
10810	73.5
10799	74.1
10777	73.9
10790	73.9
10842	76
10805	74.3
10597	74.5
10644	74
10750	74
10600	73.7
10450	74.75
10800	74.2
10799	73.25
10746	74
10777	73.6
10748	72.85
10622	72.95
10520	73.6
10511	74
10674	75.15
10650	75.1
10690	75
10500	73.9
10550	74.3
10501	73.3
10400	73.85
10432	73.95
10550	73.9
10705	74.4
10749	74.5
10740	74.15
10730	74.3
10745	74.25
10737	74.2
10750	74.1
10822	73.65
10720	73.35

t	O2 C.R. - BAATELEC
36	-0.366554
37	-0.290822
38	-0.288851
39	0.857659
40	0.723944
41	0.581962
42	0.640863
43	0.691457
44	0.692956
45	0.611717
46	0.643750
47	0.586740
48	0.612653
49	0.541512
50	0.520833
51	0.496392
52	0.494792
53	0.524868
54	0.496392
55	0.536885
56	0.656155
57	0.560039
58	0.585427
59	0.604061
60	0.634359
61	0.621756
62	0.612426
63	0.683168
64	0.891626
65	0.987179
66	1.140733
67	1.256334
68	1.292179
69	1.197458
70	1.066314
71	0.946667
72	0.716554
73	0.728424
74	0.696616
75	0.796569
76	0.854349
77	0.728538
78	0.620640
79	0.608819

10750	74
10800	74.4
10720	74.2
10700	74.5
10735	73.1
10797	74
10780	74.7
10764	74
10749	74.35
10790	73.2
10830	72.95
10847	72.6
10702	71.65
10701	71.8
10700	70.1
10969	70.8
10960	71.1
10900	73.7
10525	69.15
10670	72.8
10800	72.6
10855	70.7
10945	71
11064	74
11079	71.5
11100	72.3
11494	72.4
11433	72.45
11300	71.6
11330	70.05
11390	70.7
11389.00	70.50
11389.00	70.70
11388.00	69.00
11388.00	70.00
11387.00	69.05
11290.00	69.05
11353.00	69.50
11387.00	70.65
11400.00	71.00
11400.00	70.20

80	0.629366
81	0.569305
82	0.550836
83	0.527873
84	0.517667
85	0.480822
86	0.481915
87	0.501742
88	0.477446
89	0.467447
90	0.420000

průměr	0.625817
rozptyl	0.092008

	O2 C.R. - BAATELEC
O2 C.R. - BAATELEC	0.092008
PEGAS NONWOVENS SAA - BAAPEGAS	0.006037
PLG - BAAPLG	-0.002616
PHILIP MORRIS ČR - BAATABAK	0.003030
STOCK SPIRITS GROUP - BAASTOCK	-0.000377
Raiffeisenbank a.s.	0.000000

11348.00	70.05
11398.00	71.00
11398.00	70.10
11490.00	69.80
11550.00	69.10

r akcií

Raiffeisenbank a.s.

1.3%

PEGAS NONWOVENS SAA - BAAPEGAS	PLG - BAAPLG	PHILIP MORRIS ČR - BAATABAK	STOCK SPIRITS GROUP - BAASTOCK
0.055699	0.063687	-0.015179	-0.023622
0.046709	0.071910	-0.010130	-0.010624
0.035000	0.063355	-0.011050	-0.015272
-0.003374	0.064246	-0.014511	-0.017845
0.019830	0.072067	-0.009586	-0.023026
0.028025	0.064210	-0.001116	-0.013298
0.032258	0.000000	-0.003060	-0.010681
0.038557	0.003159	0.001110	0.002041
0.037877	0.018568	-0.007315	-0.010121
0.026994	-0.007732	-0.002505	0.001353
0.008505	0.009380	0.000927	0.006766
-0.003533	0.021568	-0.011253	-0.023684
0.006203	0.016230	-0.009718	0.002692
0.001977	0.010433	0.013023	-0.018792
-0.001854	0.027148	0.014374	0.000000
0.001464	0.020681	0.002791	0.009459
0.000122	0.024993	0.015472	0.004071
-0.005066	0.020085	0.028612	-0.005351
0.013431	0.021946	-0.000926	-0.013477
0.028148	0.016282	0.002871	-0.004096
0.052045	0.035412	0.009399	-0.018919
0.151133	0.035677	-0.006959	-0.026495
0.141215	0.038462	-0.004373	-0.014413
0.201668	0.039257	0.007343	-0.039068
0.153753	0.021220	0.042681	-0.038043
0.141365	0.013655	0.042717	-0.039189
0.127409	0.017368	0.021173	-0.019295
0.085321	-0.012632	-0.011737	-0.079228
0.158665	-0.006880	-0.001871	-0.029333
0.152551	0.007690	0.028571	-0.017591
0.151861	0.025789	0.028910	-0.048452
0.156592	0.004717	0.042282	-0.031378
0.135819	0.028496	0.063846	0.002031
0.094847	0.037895	0.062021	-0.033130
0.090798	0.027368	0.052133	-0.021651
0.098160	0.034139	0.073704	-0.026882
0.084774	0.031447	0.063634	-0.027517
0.074879	0.045669	0.052142	-0.034390
0.082225	0.044619	0.055918	-0.057201
0.084541	0.041167	0.060028	-0.047811
0.074817	0.038300	0.060725	-0.049865
0.069832	0.041406	0.059442	-0.045884
0.074850	0.049593	0.052301	-0.063136
0.076351	0.065104	0.062313	-0.045671

0.066906	0.064935	0.059256	-0.066892
0.084337	0.051110	0.045370	-0.071909
0.084963	0.056128	0.059049	-0.063342
0.093095	0.056672	0.064206	-0.051678
0.072750	0.058338	0.061947	-0.028728
0.072579	0.046446	0.055849	-0.051351
0.051029	0.043344	0.052690	-0.062249
0.052503	0.047228	0.058900	-0.040541
0.046193	0.065285	0.060378	-0.057162
0.035542	0.055627	0.064875	-0.046448
0.042147	0.050129	0.066482	-0.052776

0.068809	0.034589	0.028149	-0.029256
0.002635	0.000475	0.000889	0.000496

PEGAS NONWOVENS SAA - BAAPEGAS	PLG - BAAPLG	PHILIP MORRIS ČR - BAATABAK	STOCK SPIRITS GROUP - BAASTOCK
0.006037	-0.002616	0.003030	-0.000377
0.002635	-0.000121	0.000448	-0.000416
-0.000121	0.000475	0.000200	-0.000175
0.000448	0.000200	0.000889	-0.000379
-0.000416	-0.000175	-0.000379	0.000496
0.000000	0.000000	0.000000	0.000000

Markowitzův model

Průměrné výnosy R_i

Kovarianční matice S_{ij}

O2 C.R. - BAATELEC

PEGAS NONWOVENS SAA - BAAPEGAS

PLG - BAAPLG

PHILIP MORRIS ČR - BAATABAK

STOCK SPIRITS GROUP - BAASTOCK

Raiffeisenbank a.s.

Z_i (skladba portfolia):

Z_i *kovarianční matice:

Zadaný minimální výnos:

Vypočtený výnos:

Minimální riziko:

Bezrizikové aktivum:

Komentář: Při zadaném 5 % výnosu bude skutečné riziko 1,47 %, naše portfolio dosahuje výnosu 5 % , 4,36% naší investice realizujeme ve prospěch akcie O2, 4,02% vložíme do akcií PEGAS, 56,33 % vložíme do akcií PLG a 35,29 % uložíme na účet Raiffeisenbank a.s.

O2 C.R. - BAATELEC	4.36%
PEGAS NONWOVENS SAA - BAAPEGAS	4.02%
PLG - BAAPLG	56.33%
PHILIP MORRIS ČR - BAATABAK	0.00%
STOCK SPIRITS GROUP - BAASTOCK	0.00%
Raiffeisenbank a.s.	35.29%
Minimální riziko:	1.47%

O2 C.R. - BAATELEC	PEGAS NONWOVENS SAA - BAAPEGAS	PLG - BAAPLG	PHILIP MORRIS ČR - BAATABAK
0.625817	0.068809	0.034589	0.028149

O2 C.R. - BAATELEC	PEGAS NONWOVENS SAA - BAAPEGAS	PLG - BAAPLG	PHILIP MORRIS ČR - BAATABAK
0.092008	0.006037	-0.002616	0.003030
0.006037	0.002635	-0.000121	0.000448
-0.002616	-0.000121	0.000475	0.000200
0.003030	0.000448	0.000200	0.000889
-0.000377	-0.000416	-0.000175	-0.000379
0.000000	0.000000	0.000000	0.000000

0.04364	0.04019	0.56331	0.00000
0.00278	0.00030	0.00015	0.00026
0.05			
0.0500			
0.0147			
Raiffeisenbank a.s.			

STOCK SPIRITS GROUP - BAASTOCK	Raiffeisenbank a.s.
-0.029256	0.001247

STOCK SPIRITS GROUP - BAASTOCK	Raiffeisenbank a.s.
-0.000377	0.000000
-0.000416	0.000000
-0.000175	0.000000
-0.000379	0.000000
0.000496	0.000000
0.000000	0.000000

0.00000	0.35286	SUMA ZI:	1
-0.00013	0.00000		

Sharpeho model

Průměrné výnosy R_i

Kovarianční matice S_{ij}

O2 C.R. - BAATELEC

PEGAS NONWOVENS
SAA - BAAPEGAS

PLG - BAAPLG

PHILIP MORRIS ČR -
BAATABAK

STOCK SPIRITS GROUP
- BAASTOCK

Raiffeisenbank a.s.

Z_i (skladba portfolia)

$Z_i * \text{Kov.mat.}$:

Horní hranice rizika:

Riziko vypočtené:

Maximální výnos:

Bezrizikové aktivum:

Komentář: Sharpeho model nám znázorňuje, že při zadaném riziku 10 % podstupujeme reálný výnosem 23,88 % a investice vkládáme 65,46 % do akcií PLG a 34,54 % do akcií O2 C.R.

O2 C.R. - BAATELEC	34.54%
PEGAS NONWOVENS SAA - BAAPEGAS	0.00%
PLG - BAAPLG	65.46%
PHILIP MORRIS ČR - BAATABAK	0.00%
STOCK SPIRITS GROUP - BAASTOCK	0.00%
Raiffeisenbank a.s.	0.00%
Maximální výnos:	23.88%

O2 C.R. - BAATELEC	PEGAS NONWOVENS SAA - BAAPEGAS	PLG - BAAPLG
0.625817	0.068809	0.034589

O2 C.R. - BAATELEC	PEGAS NONWOVENS SAA - BAAPEGAS	PLG - BAAPLG
0.092008	0.006037	-0.002616
0.006037	0.002635	-0.000121
-0.002616	-0.000121	0.000475
0.003030	0.000448	0.000200
-0.000377	-0.000416	-0.000175
0.000000	0.000000	0.000000

0.34544	0.00000	0.65456
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0.030071	0.002006	-0.000593
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0.10
0.10
0.2388
Raiffeisenbank a.s.

šlné riziko10 % s

PHILIP MORRIS ČR - BAATABAK	STOCK SPIRITS GROUP - BAASTOCK	Raiffeisenbank a.s.
0.028149	-0.029256	0.001247

PHILIP MORRIS ČR - BAATABAK	STOCK SPIRITS GROUP - BAASTOCK	Raiffeisenbank a.s.
0.003030	-0.000377	0.000000
0.000448	-0.000416	0.000000
0.000200	-0.000175	0.000000
0.000889	-0.000379	0.000000
-0.000379	0.000496	0.000000
0.000000	0.000000	0.000000

0.00000	0.00000	0.00000	SUMA ZI:
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0.001177	-0.000245	0.000000
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