

týden	pořadí	hodnota
1	1	186
2	2	191
3	3	196
4	4	206
5	5	215
6	6	225
7	7	235
8	8	248
9	9	255
10	10	266
11	11	278
12	12	295
13	13	313
14	14	331
15	15	350
16	16	368
17	17	390
18	18	406
19	19	423
20	20	438
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	23	
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	45 46 47 48	
	49 50 51 52	
	53 54 55 56	
	57 58 59 60	

beta=1-alfa	<b>0.75</b>
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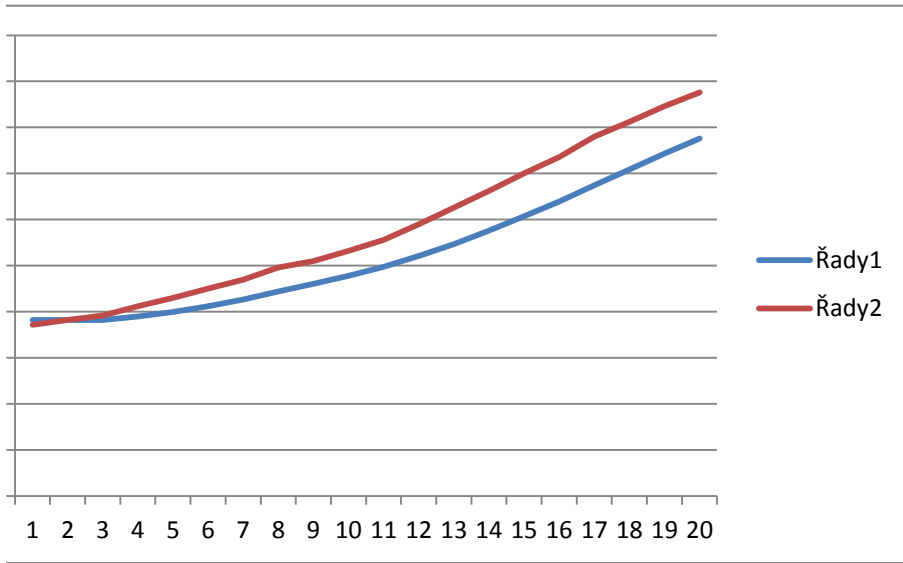
nobs	<b>20</b>
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0.25

pozorování	20-obs	$y_k$	$\alpha^k$ -degresivně	$k \cdot \alpha^k$ -nepoužito	$y_{20-k} \cdot \alpha^k$	suma $y_{20-k} \cdot \alpha^k$
1	19	186	0.00423		0.786	0.7865
2	18	191	0.00564		1.077	1.8633
3	17	196	0.00752		1.473	3.3366
4	16	206	0.01002		2.065	5.4012
5	15	215	0.01336		2.873	8.2744
6	14	225	0.01782		4.009	12.2834
7	13	235	0.02376		5.583	17.8664
8	12	248	0.03168		7.856	25.7221
9	11	255	0.04224		10.770	36.4921
10	10	266	0.05631		14.979	51.4715
11	9	278	0.07508		20.874	72.3450
12	8	295	0.10011		29.533	101.8783
13	7	313	0.13348		41.780	143.6588
14	6	331	0.17798		58.911	202.5697
15	5	350	0.23730		83.057	285.6263
16	4	368	0.31641		116.438	402.0638
17	3	390	0.42188		164.531	566.5951
18	2	406	0.56250		228.375	794.9701
19	1	423	0.75000		317.250	1112.2201
20	0	438	1.00000		438.000	1550.2201
<b>210</b>	<b>190</b>	<b>5815</b>	<b>3.98732</b>	<b>0.0</b>	<b>1550.220</b>	
	$\Sigma k$	$\Sigma y_k$	$\Sigma \alpha^k$	$\Sigma k \cdot \alpha^k$	$\Sigma y_k \cdot \alpha^k$	

parametr	a =			
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vyrovnání, $y_{v_k} = \beta_0$	skutečnost $y_k$	vyrovnání přímkou $y_k = y_1 + d$	rezidua	abs.rezidua	rezidua <sup>2</sup>	
191.00	186	186.000	-5.00	5.00	25.00	500.00
191.00	191	199.263	0.00	0.00	0.00	450.00
191.00	196	204.263	5.00	5.00	25.00	400.00
194.75	206	209.263	11.25	11.25	126.56	350.00
199.81	215	219.263	15.19	15.19	230.66	300.00
206.11	225	228.263	18.89	18.89	356.86	250.00
213.33	235	238.263	21.67	21.67	469.50	200.00
222.00	248	248.263	26.00	26.00	676.05	150.00
230.25	255	261.263	24.75	24.75	612.60	100.00
239.19	266	268.263	26.81	26.81	718.94	50.00
248.89	278	279.263	29.11	29.11	847.38	0.00
260.42	295	291.263	34.58	34.58	1195.94	
273.56	313	308.263	39.44	39.44	1555.26	
287.92	331	326.263	43.08	43.08	1855.68	
303.44	350	344.263	46.56	46.56	2167.66	
319.58	368	363.263	48.42	48.42	2344.36	
337.19	390	381.263	52.81	52.81	2789.32	
354.39	406	403.263	51.61	51.61	2663.64	
371.54	423	419.263	51.46	51.46	2647.91	
388.16	438	436.263	49.84	49.84	2484.36	
388.16		436.263	34.79	34.79	1396.63	37.3715
388.16		436.263	ME	MAE	MSE	RMSE
388.16		436.263				
388.16		436.263				
388.16		436.263				



beta=1-alfa	<b>0.75</b>
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nobs	<b>20</b>
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pozorování	k	$y_{20-k}$	váhy $\alpha^k$	$y_{20-k} \cdot \alpha^k$	$k \cdot y_{20-k} \cdot \alpha^k$	suma $y_{20-k} \cdot \alpha^k$	suma $k \cdot y_{20-k} \cdot \alpha^k$
1	19	186	0.004228	0.786	14.9428	0.7865	14.9428
2	18	191	0.005638	1.077	19.3824	1.8633	34.3252
3	17	196	0.007517	1.473	25.0465	3.3366	59.3717
4	16	206	0.010023	2.065	33.0345	5.4012	92.4061
5	15	215	0.013363	2.873	43.0972	8.2744	135.5033
6	14	225	0.017818	4.009	56.1265	12.2834	191.6298
7	13	235	0.023757	5.583	72.5784	17.8664	264.2083
8	12	248	0.031676	7.856	94.2688	25.7221	358.4771
9	11	255	0.042235	10.770	118.4696	36.4921	476.9467
10	10	266	0.056314	14.979	149.7939	51.4715	626.7406
11	9	278	0.075085	20.874	187.8619	72.3450	814.6025
12	8	295	0.100113	29.533	236.2665	101.8783	1050.8690
13	7	313	0.133484	41.780	292.4632	143.6588	1343.3322
14	6	331	0.177979	58.911	353.4653	202.5697	1696.7975
15	5	350	0.237305	83.057	415.2832	285.6263	2112.0807
16	4	368	0.316406	116.438	465.7500	402.0638	2577.8307
17	3	390	0.421875	164.531	493.5938	566.5951	3071.4245
18	2	406	0.562500	228.375	456.7500	794.9701	3528.1745
19	1	423	0.750000	317.250	317.2500	1112.2201	3845.4245
20	0	438	1.000000	438.000	0.0000	1550.2201	3845.4245
210	1	5815	3.98732	1550.22006	3845.42445		
	2		$\Sigma \alpha^k$	$\Sigma \alpha^k y_{n-k}$	$\Sigma k \cdot \alpha^k y_{n-k}$		
	3						
	4						
	5						

		čítatel	jmenovatel	
parametr	a =	74556.9	170.488	437.3136
parametr	b =	2817.442	170.488	16.5257

k. $\alpha^k$	k <sup>2</sup> . $\alpha^k$	vyrovnání lineární	predikce	S <sub>t</sub>	S <sub>t</sub> <sup>+</sup>	a <sub>0</sub>	a <sub>1</sub>
		YV <sub>20-k-1</sub>	podle S <sub>t</sub> , S <sub>t</sub> <sup>+</sup>				
0.080337	1.52641	191.000	-0.85	0.20	0.93	-0.59	-0.26
0.101479	1.82662	191.000	-1.93	0.47	2.15	-1.33	-0.60
0.127788	2.17240	191.000	-3.28	0.83	3.71	-2.25	-1.03
0.160362	2.56578	172.902	-5.00	1.35	5.78	-3.41	-1.59
0.200452	3.00678	189.428	-7.15	2.07	8.47	-4.85	-2.31
0.249451	3.49232	205.954	-9.83	3.07	11.98	-6.60	-3.22
0.308844	4.01498	222.479	-13.08	4.47	16.51	-8.70	-4.39
0.380116	4.56139	239.005	-17.01	6.43	22.40	-11.15	-5.86
0.464586	5.11045	255.531	-21.50	9.12	29.81	-13.84	-7.66
0.563135	5.63135	272.057	-26.49	12.87	39.17	-16.65	-9.84
0.675762	6.08186	288.582	-31.71	18.09	50.91	-19.26	-12.45
0.800903	6.40723	305.108	-36.63	25.47	65.68	-21.11	-15.53
0.934387	6.54071	321.634	-40.11	35.91	83.96	-21.11	-19.01
1.067871	6.40723	338.159	-40.11	50.64	106.05	-17.43	-22.69
1.186523	5.93262	354.685	-33.19	71.41	132.01	-7.04	-26.15
1.265625	5.06250	371.211	-13.79	100.52	161.11	14.79	-28.58
1.265625	3.79688	387.736	27.35	141.65	191.96	55.92	-28.58
1.125000	2.25000	404.262	103.47	198.74	220.51	127.29	-23.82
0.750000	0.75000	420.788	235.66	278.06	240.34	246.26	-10.60
0.000000	0.00000	437.314	454.66	387.56	240.34	437.88	16.78
11.70825	77.13750	453.839				0.00	0.00
$\Sigma k.\alpha^k$	$\Sigma k^2.\alpha^k$	470.365				0.00	0.00
		486.891				0.00	0.00
		503.416				0.00	0.00
		519.942				0.00	0.00

	rezidua	abs.rezidua	rezidua <sup>2</sup>	
0	186.85	186.85	34913.67	
1	192.93	192.93	37221.52	
2	199.28	199.28	39712.26	
3	211.00	211.00	44520.954	
4	222.15	222.15	49352.733	
5	234.83	234.83	55143.928	
6	248.08	248.08	61545.754	
7	265.01	265.01	70231.379	
8	276.50	276.50	76451.983	
9	292.49	292.49	85551.950	
10	309.71	309.71	95920.925	
11	331.63	331.63	109980.615	
12	353.11	353.11	124690.174	
13	371.11	371.11	137726.312	
14	383.19	383.19	146837.313	
15	381.79	381.79	145761.559	
16	362.65	362.65	131518.293	
17	302.53	302.53	91524.104	
18	187.34	187.34	35097.028	
19	-16.66	16.66	277.489	
1	277.44	279.40	86007.794	293.271
2	ME	MAE	MSE	RMSE
3				
4				
5				



beta=1-alfa	<b>0.7</b>	alfaCIPRA	<b>nobs = 20</b>
		<b>0.3</b>	

pozorování	k	$y_{20-k}$	váhy $\alpha^k$	$y_{20-k} \cdot \alpha^k$	$k \cdot y_{20-k} \cdot \alpha^k$	$k \cdot \alpha^k$	$k^2 \cdot \alpha^k$
1	19	186	0.001140	0.212	4.0284	0.021658	0.41150
2	18	191	0.001628	0.311	5.5985	0.029311	0.52761
3	17	196	0.002326	0.456	7.7512	0.039547	0.67230
4	16	206	0.003323	0.685	10.9536	0.053173	0.85076
5	15	215	0.004748	1.021	15.3109	0.071213	1.06820
6	14	225	0.006782	1.526	21.3640	0.094951	1.32932
7	13	235	0.009689	2.277	29.5996	0.125956	1.63742
8	12	248	0.013841	3.433	41.1917	0.166095	1.99315
9	11	255	0.019773	5.042	55.4640	0.217506	2.39257
10	10	266	0.028248	7.514	75.1384	0.282475	2.82475
11	9	278	0.040354	11.218	100.9647	0.363182	3.26864
12	8	295	0.057648	17.006	136.0493	0.461184	3.68947
13	7	313	0.082354	25.777	180.4383	0.576480	4.03536
14	6	331	0.117649	38.942	233.6509	0.705894	4.23536
15	5	350	0.168070	58.825	294.1225	0.840350	4.20175
16	4	368	0.240100	88.357	353.4272	0.960400	3.84160
17	3	390	0.343000	133.770	401.3100	1.029000	3.08700
18	2	406	0.490000	198.940	397.8800	0.980000	1.96000
19	1	423	0.700000	296.100	296.1000	0.700000	0.70000
20	0	438	1.000000	438.000	0.0000	0.000000	0.00000
210	1	5815	3.33067	1329.41036	2660.34320	7.71838	42.72677
	2		$\Sigma \alpha^k$	$\Sigma \alpha^k y_{n-k}$	$\Sigma k \cdot \alpha^k y_{n-k}$	$\Sigma k \cdot \alpha^k$	$\Sigma k^2 \cdot \alpha^k$
	3						
	4						
	5						

		čítatel	jmenovatel		
parametr	a =	36267.9	82.736	438.3589	$b_0(0)$
parametr	b =	1400.155	82.736	16.9233	$b_1(0)$

vyrovnání	vyrovnání	$S_t$	$S_t^{[2]}$	$b_0(t)$	$b_1(t)$	
lineární	dle $S_t, S_t^{[2]}$	398.87	359.38	438.36	16.92	rezidua
191.000	317.95	335.01	352.07	317.95	-7.31	-131.95
191.000	249.62	291.81	333.99	249.62	-18.08	-58.62
191.000	213.42	263.06	312.71	213.42	-21.28	-17.42
167.587	199.21	245.95	292.68	199.21	-20.03	6.79
184.510	197.45	236.66	275.88	197.45	-16.81	17.55
201.433	203.26	233.16	263.06	203.26	-12.81	21.74
218.357	213.17	233.71	254.26	213.17	-8.80	21.83
235.280	226.62	238.00	249.38	226.62	-4.88	21.38
252.203	238.70	243.10	247.50	238.70	-1.88	16.30
269.126	251.70	249.97	248.24	251.70	0.74	14.30
286.050	265.48	258.38	251.28	265.48	3.04	12.52
302.973	282.02	269.37	256.71	282.02	5.43	12.98
319.896	300.48	282.46	264.43	300.48	7.72	12.52
336.819	319.83	297.02	274.21	319.83	9.78	11.17
353.743	340.01	312.91	285.82	340.01	11.61	9.99
370.666	359.97	329.44	298.91	359.97	13.09	8.03
387.589	381.70	347.61	313.52	381.70	14.61	8.30
404.512	401.25	365.13	329.00	401.25	15.48	4.75
421.436	419.93	382.49	345.05	419.93	16.05	3.07
438.359	437.01	399.14	361.27	437.01	16.23	0.99
455.282	453.24					12.01
472.205	469.47					ME
489.129	485.69					
506.052	501.92					
522.975	518.15					
predikce lineární	predikce dle $S_t, S_t^{[2]}$					

abs.rezidua	rezidua <sup>2</sup>	
131.95	17410.34	
58.62	3436.50	
17.42	303.31	
6.79	46.140	
17.55	308.120	
21.74	472.468	
21.83	476.536	
21.38	457.138	
16.30	265.578	
14.30	204.450	
12.52	156.818	
12.98	168.363	
12.52	156.739	
11.17	124.755	
9.99	99.851	
8.03	64.426	
8.30	68.904	
4.75	22.545	
3.07	9.425	
0.99	0.983	
12.01	182.544	13.511
MAE	MSE	RMSE

beta=1-alfa	0.7
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nobs	20
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pozorování	k	$y_{20-k}$	váhy $\alpha^k$	$y_{20-k} \cdot \alpha^k$	$k \cdot y_{20-k} \cdot \alpha^k$	$k \cdot \alpha^k$	$k^2 \cdot \alpha^k$
1	19	186	0.001140	0.212	4.0284	0.021658	0.41150
2	18	191	0.001628	0.311	5.5985	0.029311	0.52761
3	17	196	0.002326	0.456	7.7512	0.039547	0.67230
4	16	206	0.003323	0.685	10.9536	0.053173	0.85076
5	15	215	0.004748	1.021	15.3109	0.071213	1.06820
6	14	225	0.006782	1.526	21.3640	0.094951	1.32932
7	13	235	0.009689	2.277	29.5996	0.125956	1.63742
8	12	248	0.013841	3.433	41.1917	0.166095	1.99315
9	11	255	0.019773	5.042	55.4640	0.217506	2.39257
10	10	266	0.028248	7.514	75.1384	0.282475	2.82475
11	9	278	0.040354	11.218	100.9647	0.363182	3.26864
12	8	295	0.057648	17.006	136.0493	0.461184	3.68947
13	7	313	0.082354	25.777	180.4383	0.576480	4.03536
14	6	331	0.117649	38.942	233.6509	0.705894	4.23536
15	5	350	0.168070	58.825	294.1225	0.840350	4.20175
16	4	368	0.240100	88.357	353.4272	0.960400	3.84160
17	3	390	0.343000	133.770	401.3100	1.029000	3.08700
18	2	406	0.490000	198.940	397.8800	0.980000	1.96000
19	1	423	0.700000	296.100	296.1000	0.700000	0.70000
20	0	438	1.000000	438.000	0.0000	0.000000	0.00000
210	190	5815	3.33067	1329.41036	2660.34320	7.71838	42.72677
			$\Sigma \alpha^k$	$\Sigma \alpha^k y_{n-k}$	$\Sigma k \cdot \alpha^k y_{n-k}$	$\Sigma k \cdot \alpha^k$	$\Sigma k^2 \cdot \alpha^k$

		čítatel	jmenovatel	
parametr	a =	36267.9	82.736	438.3589
parametr	b =	1400.155	82.736	16.9233

vyrovnání lineární	predikce						
$y_{20-k-1}$	hodnota	$S_t$	$S_t^+$		rezidua	abs.rezidua	rezidua <sup>2</sup>
191.00	438.36	431.11	423.85	0	-252.36	252.36	63685.02
191.00	102.21	263.03	423.85	1	88.79	88.79	7883.59
191.00	8.37	216.11	423.85	2	187.63	187.63	35206.58
167.59	144.59	209.03	273.48	3	61.41	61.41	3771.588
184.51	195.13	213.21	231.29	4	19.87	19.87	394.852
201.43	218.51	221.46	224.41	5	6.49	6.49	42.060
218.36	232.90	230.94	228.98	6	2.10	2.10	4.422
235.28	247.05	242.88	238.71	7	0.95	0.95	0.899
252.20	255.16	251.36	247.57	8	-0.16	0.16	0.026
269.13	265.82	261.61	257.40	9	0.18	0.18	0.032
286.05	277.79	273.08	268.38	10	0.21	0.21	0.045
302.97	294.44	288.42	282.41	11	0.56	0.56	0.315
319.90	312.59	305.63	298.66	12	0.41	0.41	0.166
336.82	330.81	323.39	315.97	13	0.19	0.19	0.038
353.74	349.83	342.02	334.20	14	0.17	0.17	0.029
370.67	368.01	360.20	352.40	15	-0.01	0.01	0.000
387.59	389.66	381.06	372.46	16	0.34	0.34	0.117
404.51	406.33	398.52	390.70	17	-0.33	0.33	0.112
421.44	423.14	415.66	408.17	18	-0.14	0.14	0.020
438.36	438.23	431.30	424.36	19	-0.23	0.23	0.055
	454.424			1	5.41	5.52	247.928
	426.093			2	ME	MAE	MSE
	433.820			3			
	435.537			4			
	436.292			5			

15.746
RMSE

n=	50	beta=1-alfa	0.8
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DATE	NOBS	n-NOBS	HDPCR	$\alpha^k$	$y_{n-k} \cdot \alpha^k$	$k \cdot y_{n-k} \cdot \alpha^k$
1995Q1	1	49	332995	0.80000	266396.00	266396.00
1995Q2	2	48	366618	0.64000	234635.52	469271.04
1995Q3	3	47	376688	0.51200	192864.26	578592.77
1995Q4	4	46	390221	0.40960	159834.52	639338.09
1996Q1	5	45	382859	0.32768	125455.24	627276.19
1996Q2	6	44	423953	0.26214	111136.74	666820.41
1996Q3	7	43	432152	0.20972	90628.84	634401.90
1996Q4	8	42	444324	0.16777	74545.20	596361.58
1997Q1	9	41	415593	0.13422	55779.95	502019.53
1997Q2	10	40	455790	0.10737	48940.08	489400.79
1997Q3	11	39	461902	0.08590	39677.08	436447.88
1997Q4	12	38	477809	0.06872	32834.78	394017.41
1998Q1	13	37	457925	0.05498	25174.69	327271.01
1998Q2	14	36	512225	0.04398	22527.89	315390.51
1998Q3	15	35	512408	0.03518	18028.75	270431.31
1998Q4	16	34	513925	0.02815	14465.70	231451.24
1999Q1	17	33	481895	0.02252	10851.31	184472.28
1999Q2	18	32	532968	0.01801	9601.10	172819.76
1999Q3	19	31	529465	0.01441	7630.39	144977.50
1999Q4	20	30	536469	0.01153	6185.07	123701.33
2000Q1	21	29	504479	0.00922	4653.00	97712.95
2000Q2	22	28	558691	0.00738	4122.41	90693.06
2000Q3	23	27	557780	0.00590	3292.55	75728.70
2000Q4	24	26	568219	0.00472	2683.34	64400.12
2001Q1	25	25	540124	0.00378	2040.53	51013.27
2001Q2	26	24	598842	0.00302	1809.89	47057.11
2001Q3	27	23	599262	0.00242	1448.93	39121.02
2001Q4	28	22	613986	0.00193	1187.62	33253.41
2002Q1	29	21	576665	0.00155	892.35	25878.03
2002Q2	30	20	630141	0.00124	780.08	23402.30
2002Q3	31	19	621004	0.00099	615.01	19065.39
2002Q4	32	18	636622	0.00079	504.38	16140.29
2003Q1	33	17	598385	0.00063	379.27	12515.96
2003Q2	34	16	660401	0.00051	334.86	11385.35
2003Q3	35	15	650791	0.00041	263.99	9239.73
2003Q4	36	14	667533	0.00032	216.63	7798.57
2004Q1	37	13	650616	0.00026	168.91	6249.65
2004Q2	38	12	716444	0.00021	148.80	5654.38
2004Q3	39	11	712711	0.00017	118.42	4618.36
2004Q4	40	10	737591	0.00013	98.04	3921.71
2005Q1	41	9	697345	0.00011	74.15	3040.33
2005Q2	42	8	762115	0.00009	64.83	2723.01

2005Q3	43	7	756632	0.00007	51.49	2214.23
2005Q4	44	6	778304	0.00005	42.37	1864.50
2006Q1	45	5	742621	0.00004	32.35	1455.56
2006Q2	46	4	861462	0.00003	30.02	1380.81
2006Q3	47	3	820093	0.00003	22.86	1074.46
2006Q4	48	2	841083	0.00002	18.76	900.33
2007Q1	49	1	817704	0.00002	14.59	714.83
2007Q2	50	0	899674	0.00001	12.84	642.03
2007Q3						
2007Q4						
				4.000	1573316.39	8731717.95
				$\Sigma a^k$	$\Sigma a^k$	$\Sigma k \cdot a^k y_{n-k}$

			čítatel	jmenovatel	
parametr	a =		108316505.5	319.4	339103.74
parametr	b =		-3464985.6	319.4	-10847.74



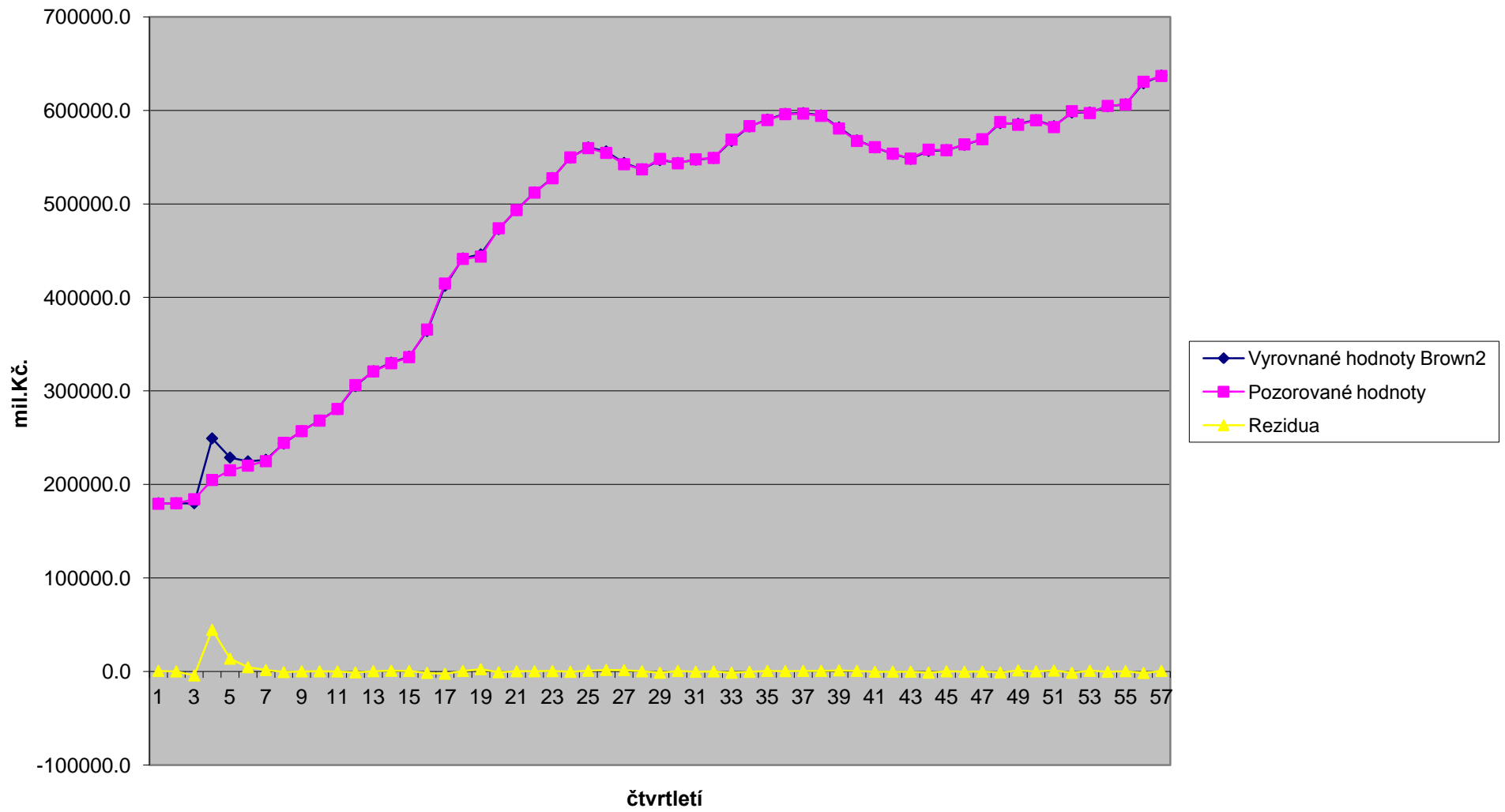
$k \cdot \alpha^k$	$k^2 \cdot \alpha^k$	$S_t^{[1]}$	$S_t^{[2]}$	vyrovnání $yv_k$	predikce hodnota	HDPCR
0.80	0.800	1152.0	855.1	366618.0	366618.0	332995
1.28	2.560	293524.8	855.1	366618.0	366618.0	366618
1.54	4.608	360055.4	855.1	366618.0	366618.0	376688
1.64	6.554	384187.9	307521.3	382494.7	460854.4	390221
1.64	8.192	383124.8	368004.1	393342.5	398245.5	382859
1.57	9.437	415787.4	406230.7	404190.2	425344.0	423953
1.47	10.276	428879.1	424349.4	415037.9	433408.7	432152
1.34	10.737	441235.0	437857.9	425885.7	444612.1	444324
1.21	10.872	420721.4	424148.7	436733.4	417294.1	415593
1.07	10.737	448776.3	443850.8	447581.2	453701.8	455790
0.94	10.394	459276.9	456191.6	458428.9	462362.1	461902
0.82	9.896	474102.6	470520.4	469276.7	477684.8	477809
0.71	9.291	461160.5	463032.5	480124.4	459288.5	457925
0.62	8.620	502012.1	494216.2	490972.1	509808.0	512225
0.53	7.916	510328.8	507106.3	501819.9	513551.3	512408
0.45	7.206	513205.8	511985.9	512667.6	514425.7	513925
0.38	6.508	488157.2	492922.9	523515.4	483391.4	481895
0.32	5.837	524005.8	517789.2	534363.1	530222.4	532968
0.27	5.203	528373.2	526256.4	545210.8	530490.0	529465
0.23	4.612	534849.8	533131.1	556058.6	536568.5	536469
0.19	4.068	510553.2	515068.8	566906.3	506037.6	504479
0.16	3.571	549063.4	542264.5	577754.1	555862.4	558691
0.14	3.123	556036.7	553282.2	588601.8	558791.1	557780
0.11	2.720	565782.5	563282.5	599449.6	568282.6	568219
0.09	2.361	545255.7	548861.1	610297.3	541650.4	540124
0.08	2.043	588124.7	580272.0	621145.0	595977.5	598842
0.07	1.763	597034.5	593682.0	631992.8	600387.1	599262
0.05	1.516	610595.7	607213.0	642840.5	613978.4	613986
0.04	1.301	583451.1	588203.5	653688.3	578698.8	576665
0.04	1.114	620803.0	614283.1	664536.0	627322.9	630141
0.03	0.952	620963.8	619627.7	675383.8	622299.9	621004
0.03	0.811	633490.4	630717.8	686231.5	636262.9	636622
0.02	0.690	605406.1	610468.4	697079.2	600343.7	598385
0.02	0.586	649402.0	641615.3	707927.0	657188.7	660401
0.01	0.497	650513.2	648733.6	718774.7	652292.8	650791
0.01	0.421	664129.0	661050.0	729622.5	667208.1	667533
0.01	0.355	653318.6	654864.9	740470.2	651772.3	650616
0.01	0.300	703818.9	694028.1	751318.0	713609.7	716444
0.01	0.253	710932.6	707551.7	762165.7	714313.5	712711
0.01	0.213	732259.3	727317.8	773013.4	737200.8	737591
0.00	0.179	704327.9	708925.8	783861.2	699729.9	697345
0.00	0.150	750557.6	742231.2	794708.9	758883.9	762115

0.00	0.126	755417.1	752779.9	805556.7	758054.3	756632
0.00	0.105	773726.6	769537.3	816404.4	777916.0	778304
0.00	0.088	748842.1	752981.2	827252.2	744703.1	742621
0.00	0.074	838938.0	821746.7	838099.9	856129.4	861462
0.00	0.062	823862.0	823438.9	848947.6	824285.1	820093
0.00	0.051	837638.8	834798.8	859795.4	840478.8	841083
0.00	0.043	821691.0	824312.5	870643.1	819069.4	817704
0.00	0.036	884077.4	872124.4	881490.9	896030.4	899674
20.00	179.83					
$\Sigma k \cdot \alpha^k$	$\Sigma k^2 \cdot \alpha^k$					

rezidua	abs.rezidua	rezidua <sup>2</sup>
-33623.0	33623.0	1130506129.0
0.0	0.0	0.0
10070.0	10070.0	101404900.0
7726.3	7726.3	59695544.8
-10483.5	10483.5	109902794.3
19762.8	19762.8	390568425.5
17114.1	17114.1	292891102.3
18438.3	18438.3	339971607.0
-21140.4	21140.4	446917508.7
8208.8	8208.8	67384953.6
3473.1	3473.1	12062363.3
8532.3	8532.3	72800975.5
-22199.4	22199.4	492813084.3
21252.9	21252.9	451684213.9
10588.1	10588.1	112108308.6
1257.4	1257.4	1581000.8
-41620.4	41620.4	1732254699.2
-1395.1	1395.1	1946322.3
-15745.8	15745.8	247931764.0
-19589.6	19589.6	383752101.3
-62427.3	62427.3	3897172056.6
-19063.1	19063.1	363400895.7
-30821.8	30821.8	949984546.0
-31230.6	31230.6	975347994.7
-70173.3	70173.3	4924292653.7
-22303.0	22303.0	497425904.5
-32730.8	32730.8	1071304583.3
-28854.5	28854.5	832584021.8
-77023.3	77023.3	5932584835.9
-34395.0	34395.0	1183017207.6
-54379.8	54379.8	2957158269.8
-49609.5	49609.5	2461102718.2
-98694.2	98694.2	9740553966.7
-47526.0	47526.0	2258719478.8
-67983.7	67983.7	4621787539.0
-62089.5	62089.5	3855102596.7
-89854.2	89854.2	8073779964.9
-34874.0	34874.0	1216192919.9
-49454.7	49454.7	2445767369.0
-35422.4	35422.4	1254749448.6
-86516.2	86516.2	7485050315.1
-32593.9	32593.9	1062364131.5

-48924.7	48924.7	2393623372.3
-38100.4	38100.4	1451641466.1
-84631.2	84631.2	7162432479.9
23362.1	23362.1	545787807.7
-28854.6	28854.6	832590284.1
-18712.4	18712.4	350153283.2
-52939.1	52939.1	2802551030.4
18183.1	18183.1	330626279.9
	0.0	0.0
0.0	0.0	0.0
<b>-27760</b>	<b>21142</b>	<b>1289695039</b>
<b>MAE</b>	<b>MAE</b>	<b>MSE</b>

### Brown2 - C913 Termínované vklady



n=	<b>57</b>	beta=1-alfa	<b>0.72</b>
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QUARTER	NOBS	n-NOBS	DEPOSIT	$\alpha^k$	$y_{n-k} \cdot \alpha^k$	$k \cdot y_{n-k} \cdot \alpha^k$	$k \cdot \alpha^k$	$k^2 \cdot \alpha^k$
1993Q1	1	56	179342.9	1.0248E-08	1.84E-03	0.0	1.0248E-08	1.0248E-08
1993Q2	2	55	179879.6	1.4233E-08	2.56E-03	0.0	2.8465E-08	5.6931E-08
1993Q3	3	54	184157.9	1.9768E-08	3.64E-03	0.0	5.9303E-08	1.7791E-07
1993Q4	4	53	204782.7	2.7455E-08	5.62E-03	0.0	1.0982E-07	4.3928E-07
1994Q1	5	52	215145.3	3.8132E-08	8.20E-03	0.0	1.9066E-07	9.5330E-07
1994Q2	6	51	220120.4	5.2961E-08	1.17E-02	0.1	3.1777E-07	1.9066E-06
1994Q3	7	50	224857.6	7.3557E-08	1.65E-02	0.1	5.1490E-07	3.6043E-06
1994Q4	8	49	244498.9	1.0216E-07	2.50E-02	0.2	8.1730E-07	6.5384E-06
1995Q1	9	48	257013.4	1.4189E-07	3.65E-02	0.3	1.2770E-06	1.1493E-05
1995Q2	10	47	268251.6	1.9707E-07	5.29E-02	0.5	1.9707E-06	1.9707E-05
1995Q3	11	46	280707.7	2.7371E-07	7.68E-02	0.8	3.0108E-06	3.3119E-05
1995Q4	12	45	306236.9	3.8016E-07	1.16E-01	1.4	4.5619E-06	5.4743E-05
1996Q1	13	44	320848.6	5.2800E-07	1.69E-01	2.2	6.8639E-06	8.9231E-05
1996Q2	14	43	329595.1	7.3333E-07	2.42E-01	3.4	1.0267E-05	1.4373E-04
1996Q3	15	42	336112.3	1.0185E-06	3.42E-01	5.1	1.5278E-05	2.2916E-04
1996Q4	16	41	365625.2	1.4146E-06	5.17E-01	8.3	2.2634E-05	3.6214E-04
1997Q1	17	40	414840.1	1.9647E-06	0.82	13.9	3.3400E-05	5.6780E-04
1997Q2	18	39	441183	2.7288E-06	1.20	21.7	4.9118E-05	8.8412E-04
1997Q3	19	38	443649.1	3.7900E-06	1.68	31.9	7.2009E-05	1.3682E-03
1997Q4	20	37	473921.5	5.2638E-06	2.49	49.9	1.0528E-04	2.1055E-03
1998Q1	21	36	493387.1	7.3109E-06	3.61	75.7	1.5353E-04	3.2241E-03
1998Q2	22	35	512073.8	1.0154E-05	5.20	114.4	2.2339E-04	4.9145E-03
1998Q3	23	34	527451.8	0.00001	7.44	171.1	3.2436E-04	7.4604E-03
1998Q4	24	33	549745.5	0.00002	10.77	258.4	4.7009E-04	1.1282E-02
1999Q1	25	32	559644.4	0.00003	15.22	380.6	0.00	0.017
1999Q2	26	31	554565.3	0.00004	20.95	544.8	0.00	0.026
1999Q3	27	30	542409.4	0.00005	28.46	768.5	0.00	0.038
1999Q4	28	29	536933.7	0.00007	39.13	1095.8	0.00	0.057
2000Q1	29	28	548175	0.00010	55.49	1609.3	0.00	0.085
2000Q2	30	27	543395.4	0.00014	76.40	2292.0	0.00	0.127
2000Q3	31	26	547678.9	0.00020	106.95	3315.4	0.01	0.188
2000Q4	32	25	549152.9	0.00027	148.94	4766.0	0.01	0.278
2001Q1	33	24	568758.9	0.00038	214.24	7070.0	0.01	0.410
2001Q2	34	23	583195.2	0.00052	305.11	10373.9	0.02	0.605
2001Q3	35	22	589675.9	0.00073	428.48	14996.7	0.03	0.890
2001Q4	36	21	595970.9	0.00101	601.46	21652.6	0.04	1.308
2002Q1	37	20	596536.5	0.00140	836.16	30937.7	0.05	1.919
2002Q2	38	19	594155.3	0.00195	1156.69	43954.3	0.07	2.811
2002Q3	39	18	580665.6	0.00270	1570.04	61231.6	0.11	4.113
2002Q4	40	17	567335.8	0.00376	2130.55	85222.2	0.15	6.009
2003Q1	41	16	560701.5	0.00522	2924.50	119904.5	0.21	8.768
2003Q2	42	15	553728.3	0.00724	4011.29	168474.2	0.30	12.779

2003Q3	43	14	548450.7	0.01006	5518.14	237279.9	0.43	18.603
2003Q4	44	13	558026.2	0.01397	7797.89	343107.1	0.61	27.054
2004Q1	45	12	557442.5	0.01941	10819.07	486858.3	0.87	39.302
2004Q2	46	11	563668.2	0.02696	15194.31	698938.3	1.24	57.039
2004Q3	47	10	569176.8	0.03744	21309.45	1001544.0	1.76	82.703
2004Q4	48	9	587564.8	0.05200	30552.60	1466525.0	2.50	119.805
2005Q1	49	8	584631.3	0.07222	42222.31	2068893.4	3.54	173.401
2005Q2	50	7	589489.7	0.10031	59129.43	2956471.5	5.02	250.765
2005Q3	51	6	582149.8	0.13931	81101.66	4136184.5	7.11	362.356
2005Q4	52	5	599177.5	0.19349	115935.91	6028667.4	10.06	523.202
2006Q1	53	4	597108	0.26874	160465.94	8504695.0	14.24	754.887
2006Q2	54	3	604796.4	0.37325	225739.05	12189908.5	20.16	1088.391
2006Q3	55	2	606284.6	0.51840	314297.94	17286386.5	28.51	1568.160
2006Q4	56	1	630641.9	0.72000	454062.17	25427481.4	40.32	2257.920
2007Q1	57	0	636801.4	1.00000	636801.40	36297679.8	57.00	3249.000
				3.6	2195652.1	119709969.9	194.4	10613.0
				$\Sigma \alpha^k$	$\Sigma y_{n-k} \cdot \alpha^k$	$\Sigma k \cdot \alpha^k y_{n-k}$	$\Sigma k \cdot \alpha^k$	$\Sigma k^2 \cdot \alpha^k$

		čitatel	jmenovatel	
parametr	a =	32406205.0	117.1	276655.62
parametr	b =	-727682.0	117.1	-6212.31

$S_t^{[1]}$	$S_t^{[2]}$	vyrovnání $yv_k$	predikce hodnota	DEPOSIT	rezidua	abs.rezidua
13.2	-2.0	179879.6	179879.6	179342.9	536.7	536.7
129517.0	-2.0	179879.6	179879.6	179879.6	0.0	0.0
168858.5	-2.0	179879.6	179879.6	184157.9	-4278.3	4278.3
194723.9	140200.7	301504.8	249247.2	204782.7	44464.5	44464.5
209427.3	190043.8	307717.2	228810.8	215145.3	13665.5	13665.5
217126.3	209543.2	313929.5	224709.4	220120.4	4589.0	4589.0
222692.8	219011.0	320141.8	226374.7	224857.6	1517.1	1517.1
238393.2	232966.2	326354.1	243820.2	244498.9	-678.7	678.7
251799.7	246526.3	332566.4	257073.1	257013.4	59.7	59.7
263645.1	258851.8	338778.7	268438.3	268251.6	186.7	186.7
275930.2	271148.2	344991.0	280712.1	280707.7	4.4	4.4
297751.0	290302.2	351203.3	305199.8	306236.9	-1037.1	1037.1
314381.3	307639.1	357415.6	321123.4	320848.6	274.8	274.8
325335.2	320380.3	363627.9	330290.1	329595.1	695.0	695.0
333094.7	329534.7	369840.2	336654.8	336112.3	542.5	542.5
356516.7	348961.7	376052.5	364071.6	365625.2	-1553.6	1553.6
398509.5	384636.1	382264.8	412382.9	414840.1	-2457.2	2457.2
429234.4	416746.9	388477.1	441722.0	441183	539.0	539.0
439613.0	433210.5	394689.5	446015.5	443649.1	2366.4	2366.4
464315.1	455605.8	400901.8	473024.4	473921.5	-897.1	897.1
485246.9	476947.4	407114.1	493546.5	493387.1	159.4	159.4
504562.3	496830.1	413326.4	512294.4	512073.8	220.6	220.6
521042.7	514263.2	419538.7	527822.3	527451.8	370.5	370.5
541708.7	534024.0	425751.0	549393.5	549745.5	-352.0	352.0
554622.4	548854.9	431963.3	560390.0	559644.4	745.6	745.6
554581.3	552977.9	438175.6	556184.7	554565.3	1619.4	1619.4
545817.5	547822.4	444387.9	543812.6	542409.4	1403.2	1403.2
539421.2	541773.5	450600.2	537068.8	536933.7	135.1	135.1
545723.9	544617.8	456812.5	546830.0	548175	-1345.0	1345.0
544047.4	544207.1	463024.8	543887.7	543395.4	492.3	492.3
546662.1	545974.7	469237.1	547349.5	547678.9	-329.4	329.4
548455.5	547760.8	475449.4	549150.1	549152.9	-2.8	2.8
563073.9	558786.3	481661.8	567361.6	568758.9	-1397.3	1397.3
577561.2	572304.3	487874.1	582818.2	583195.2	-377.0	377.0
586283.8	582369.5	494086.4	590198.1	589675.9	522.2	522.2
593258.5	590209.6	500298.7	596307.4	595970.9	336.5	336.5
595618.7	594104.1	506511.0	597133.2	596536.5	596.7	596.7
594565.0	594436.0	512723.3	594694.1	594155.3	538.8	538.8
584557.4	587323.4	518935.6	581791.5	580665.6	1125.9	1125.9
572157.9	576404.2	525147.9	567911.5	567335.8	575.7	575.7
563909.3	567407.9	531360.2	560410.7	560701.5	-290.8	290.8
556579.0	559611.1	537572.5	553546.9	553728.3	-181.4	181.4

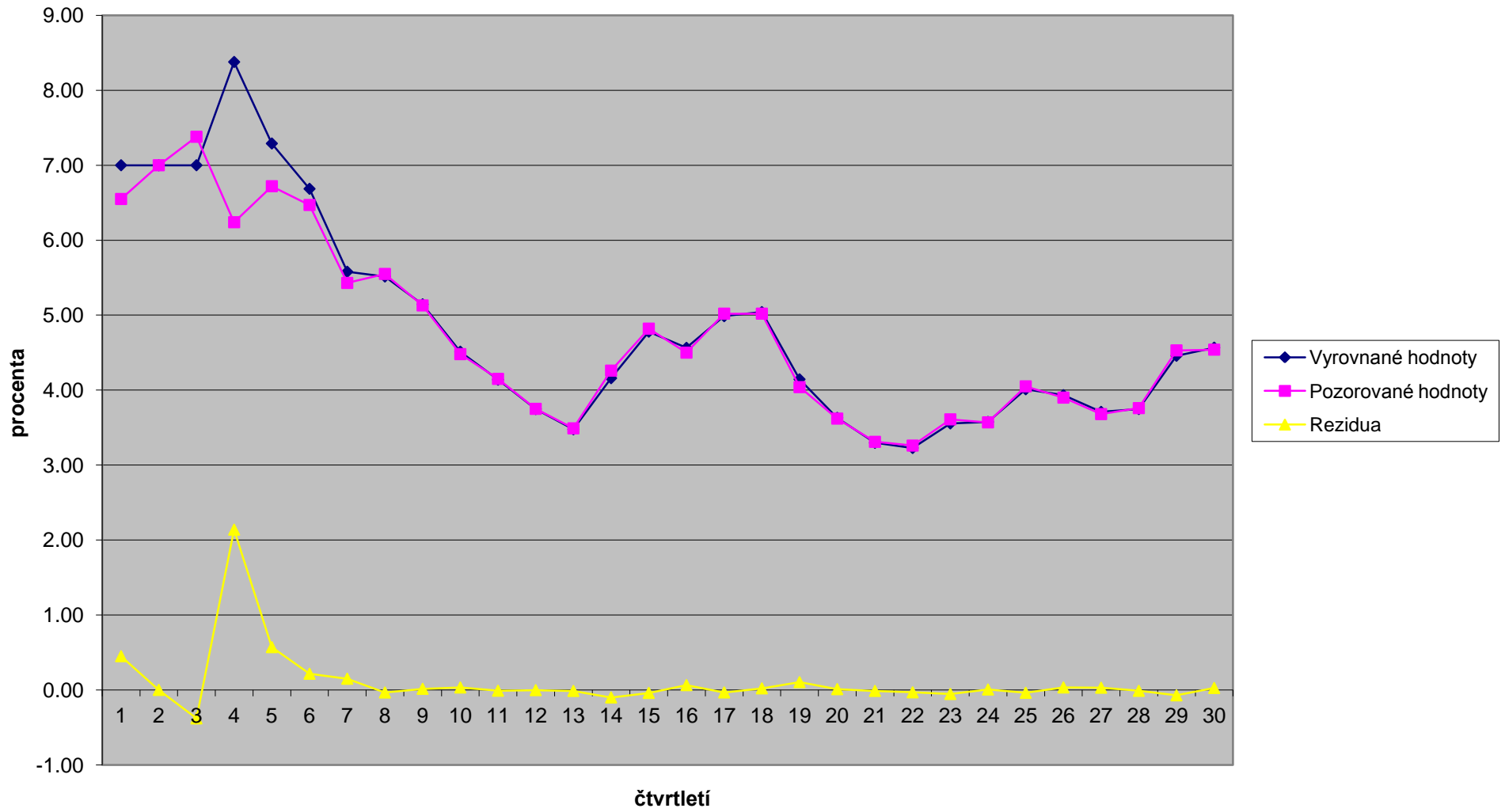


550726.6	553214.3	543784.8	548239.0	548450.7	-211.7	211.7
555982.3	555207.3	549997.1	556757.4	558026.2	-1268.8	1268.8
557033.6	556522.3	556209.4	557545.0	557442.5	102.5	102.5
561810.5	560329.8	562421.7	563291.2	563668.2	-377.0	377.0
567114.2	565214.6	568634.1	569013.9	569176.8	-162.9	162.9
581838.6	577183.9	574846.4	586493.4	587564.8	-1071.4	1071.4
583849.4	581983.0	581058.7	585715.7	584631.3	1084.4	1084.4
587910.4	586250.7	587271.0	589570.1	589489.7	80.4	80.4
583762.8	584459.4	593483.3	583066.1	582149.8	916.3	916.3
594861.4	591948.8	599695.6	597773.9	599177.5	-1403.6	1403.6
596478.9	595210.5	605907.9	597747.4	597108	639.4	639.4
602467.5	600435.6	612120.2	604499.5	604796.4	-296.9	296.9
605215.8	603877.3	618332.5	606554.3	606284.6	269.7	269.7
623522.6	618021.9	624544.8	629023.3	630641.9	-1618.6	1618.6
633083.3	628866.1	630757.1	637300.5	636801.4	499.1	499.1
177263.3	303712.1	276655.6	50814.5			0.0
49633.7	120775.7	276655.6	-21508.2			0.0
13897.4	43823.4	276655.6	-16028.5			0.0
					8.3	591.8
					ME	MAE

rezidua <sup>2</sup>
288046.9
0.0
18303850.9
1977088097.7
186745138.0
21059205.7
2301700.7
460586.8
3569.5
34866.8
19.4
1075590.3
75519.1
483070.8
294252.7
2413614.2
6037686.1
290467.3
5599827.0
804763.7
25395.4
48681.4
137245.0
123923.7
555877.7
2622438.8
1969052.3
18257.5
1808913.9
242328.1
108525.5
7.9
1952434.6
142099.3
272660.5
113250.6
356053.5
290303.9
1267543.1
331429.6
84566.1
32911.2

44828.8	
1609924.4	
10513.9	
142098.9	
26541.6	
1147949.8	
1175881.4	
6459.0	
839674.0	
1970013.8	
408806.1	
88165.6	
72732.3	
2619970.7	
249130.5	
0.0	
0.0	
0.0	
702277.8	838.0
MSE	RMSE

### Brownovo dvojité exp.vyrovňování - C932 - výnosy z dluhopisů



n=	<b>30</b>	alfa =	<b>0.7</b>
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QUARTER	NOBS	n-NOBS	REVENUE	$\alpha^k$	$y_{n-k} \cdot \alpha^k$	$k \cdot y_{n-k} \cdot \alpha^k$	$k \cdot \alpha^k$	$k^2 \cdot \alpha^k$
2000Q2	1	29	6.55	0.00003	0.00	0.00	0.00	0.000
2000Q3	2	28	7	0.00005	0.00	0.00	0.00	0.000
2000Q4	3	27	7.38	0.00007	0.00	0.00	0.00	0.001
2001Q1	4	26	6.24	0.00009	0.00	0.00	0.00	0.002
2001Q2	5	25	6.72	0.00013	0.00	0.00	0.00	0.003
2001Q3	6	24	6.47	0.00019	0.00	0.01	0.00	0.007
2001Q4	7	23	5.43	0.00027	0.00	0.01	0.00	0.013
2002Q1	8	22	5.55	0.00039	0.00	0.02	0.00	0.025
2002Q2	9	21	5.13	0.00056	0.00	0.03	0.01	0.045
2002Q3	10	20	4.48	0.00080	0.00	0.04	0.01	0.080
2002Q4	11	19	4.15	0.00114	0.00	0.05	0.01	0.138
2003Q1	12	18	3.75	0.00163	0.01	0.07	0.02	0.234
2003Q2	13	17	3.49	0.00233	0.01	0.11	0.03	0.393
2003Q3	14	16	4.26	0.00332	0.01	0.20	0.05	0.651
2003Q4	15	15	4.82	0.00475	0.02	0.34	0.07	1.068
2004Q1	16	14	4.5	0.00678	0.03	0.49	0.11	1.736
2004Q2	17	13	5.02	0.00969	0.05	0.83	0.16	2.800
2004Q3	18	12	5.02	0.01384	0.07	1.25	0.25	4.485
2004Q4	19	11	4.04	0.01977	0.08	1.52	0.38	7.138
2005Q1	20	10	3.62	0.02825	0.10	2.05	0.56	11.299
2005Q2	21	9	3.31	0.04035	0.13	2.80	0.85	17.796
2005Q3	22	8	3.26	0.05765	0.19	4.13	1.27	27.902
2005Q4	23	7	3.61	0.08235	0.30	6.84	1.89	43.565
2006Q1	24	6	3.57	0.11765	0.42	10.08	2.82	67.766
2006Q2	25	5	4.05	0.16807	0.68	17.02	4.20	105.044
2006Q3	26	4	3.9	0.24010	0.94	24.35	6.24	162.308
2006Q4	27	3	3.68	0.34300	1.26	34.08	9.26	250.047
2007Q1	28	2	3.76	0.49000	1.84	51.59	13.72	384.160
2007Q2	29	1	4.53	0.70000	3.17	91.96	20.30	588.700
2007Q3	30	0	4.54	1.00000	4.54	136.20	30.00	900.000
2007Q4								
				3.3	13.9	386.0	92.2	2577.4
				$\Sigma \alpha^k$	$\Sigma \alpha^k$	$\Sigma k \cdot \alpha^k y_{n-k}$	$\Sigma k \cdot \alpha^k$	$\Sigma k^2 \cdot \alpha^k$

		čítatel	jmenovatel	
parametr	a =	138.5	84.2	1.64
parametr	b =	-7.7	84.2	-0.09

$S_t^{[1]}$	$S_t^{[2]}$	vyrovnání $yv_k$	predikce hodnota	REVENUE	rezidua	abs.rezidua	rezidua2
0.5	-0.3	7.00	7.00	6.55	0.45	0.45	0.20
5.0	-0.3	7.00	7.00	7	0.00	0.00	0.00
6.7	-0.3	7.00	7.00	7.38	-0.38	0.38	0.14
6.4	4.4	1.28	8.38	6.24	2.14	2.14	4.57
6.6	5.9	2.10	7.29	6.72	0.57	0.57	0.33
6.5	6.3	2.19	6.69	6.47	0.22	0.22	0.05
5.8	5.9	2.28	5.58	5.43	0.15	0.15	0.02
5.6	5.7	2.37	5.52	5.55	-0.03	0.03	0.00
5.3	5.4	2.46	5.14	5.13	0.01	0.01	0.00
4.7	4.9	2.55	4.51	4.48	0.03	0.03	0.00
4.3	4.5	2.64	4.14	4.15	-0.01	0.01	0.00
3.9	4.1	2.74	3.75	3.75	0.00	0.00	0.00
3.6	3.8	2.83	3.48	3.49	-0.01	0.01	0.00
4.1	4.0	2.92	4.16	4.26	-0.10	0.10	0.01
4.6	4.4	3.01	4.78	4.82	-0.04	0.04	0.00
4.5	4.5	3.10	4.56	4.5	0.06	0.06	0.00
4.9	4.8	3.19	4.99	5.02	-0.03	0.03	0.00
5.0	4.9	3.28	5.04	5.02	0.02	0.02	0.00
4.3	4.5	3.37	4.14	4.04	0.10	0.10	0.01
3.8	4.0	3.46	3.63	3.62	0.01	0.01	0.00
3.5	3.6	3.55	3.30	3.31	-0.01	0.01	0.00
3.3	3.4	3.64	3.23	3.26	-0.03	0.03	0.00
3.5	3.5	3.74	3.56	3.61	-0.05	0.05	0.00
3.6	3.5	3.83	3.58	3.57	0.01	0.01	0.00
3.9	3.8	3.92	4.01	4.05	-0.04	0.04	0.00
3.9	3.9	4.01	3.93	3.9	0.03	0.03	0.00
3.7	3.8	4.10	3.71	3.68	0.03	0.03	0.00
3.8	3.8	4.19	3.75	3.76	-0.01	0.01	0.00
4.3	4.1	4.28	4.46	4.53	-0.07	0.07	0.01
4.5	4.4	4.37	4.57	4.54	0.03	0.03	0.00
1.3	2.2	1.64	0.43			0.00	0.00
					<b>0.10</b>	<b>0.16</b>	<b>0.18</b>
					<b>ME</b>	<b>MAE</b>	<b>MSE</b>