

týden	pořadí	hodnota
	1	186
	2	191
	3	196
	4	206
	5	215
	6	225
	7	235
	8	248
	9	255
	10	266
	11	278
	12	295
	13	313
	14	331
	15	350
	16	368
	17	390
	18	406
	19	423
	20	438
	21	
	22	
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	45 46 47 48	
	49 50 51 52	
	53 54 55 56	
	57 58 59 60	

beta=1-alfa	0.7
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nobs	20
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pozorování	20-obs	$y_k$	$\alpha^k$	$k \cdot \alpha^k$	$y_k \cdot \alpha^k$	vyrovnání $yV_k$
1	19	186	0.00114			191.00
2	18	191	0.00163			191.00
3	17	196	0.00233			191.00
4	16	206	0.00332			201.50
5	15	215	0.00475			210.95
6	14	225	0.00678			220.79
7	13	235	0.00969			230.74
8	12	248	0.01384			242.82
9	11	255	0.01977			251.35
10	10	266	0.02825			261.60
11	9	278	0.04035			273.08
12	8	295	0.05765			288.42
13	7	313	0.08235			305.63
14	6	331	0.11765			323.39
15	5	350	0.16807			342.02
16	4	368	0.24010			360.20
17	3	390	0.34300			381.06
18	2	406	0.49000			398.52
19	1	423	0.70000			415.66
20	0	438	1.00000			431.30
210	190	5815	3.33067	0.0	0.0	5712.02
	$\Sigma k$	$\Sigma y_k$	$\Sigma \alpha^k$	$\Sigma k \cdot \alpha^k$	$\Sigma y_k \cdot \alpha^k$	$\Sigma yV_k$

parametr	a =			
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predikce hodnota	rezidua	abs.rezidua	rezidua <sup>2</sup>	
191.0	-5.00	5.00	25.00	
191.0	0.00	0.00	0.00	
191.0	5.00	5.00	25.00	
201.50	4.50	4.50	20.25	
210.95	4.05	4.05	16.40	
220.79	4.21	4.21	17.77	
230.74	4.26	4.26	18.19	
242.82	5.18	5.18	26.83	
251.35	3.65	3.65	13.35	
261.60	4.40	4.40	19.33	
273.08	4.92	4.92	24.20	
288.42	6.58	6.58	43.24	
305.63	7.37	7.37	54.36	
323.39	7.61	7.61	57.94	
342.02	7.98	7.98	63.74	
360.20	7.80	7.80	60.76	
381.06	8.94	8.94	79.90	
398.52	7.48	7.48	55.97	
415.66	7.34	7.34	53.94	
431.30	6.70	6.70	44.93	
5712.02	6.06	6.06	39.48	6.2830
	ME	MAE	MSE	RMSE

beta=1-alfa	0.7
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nobs	20
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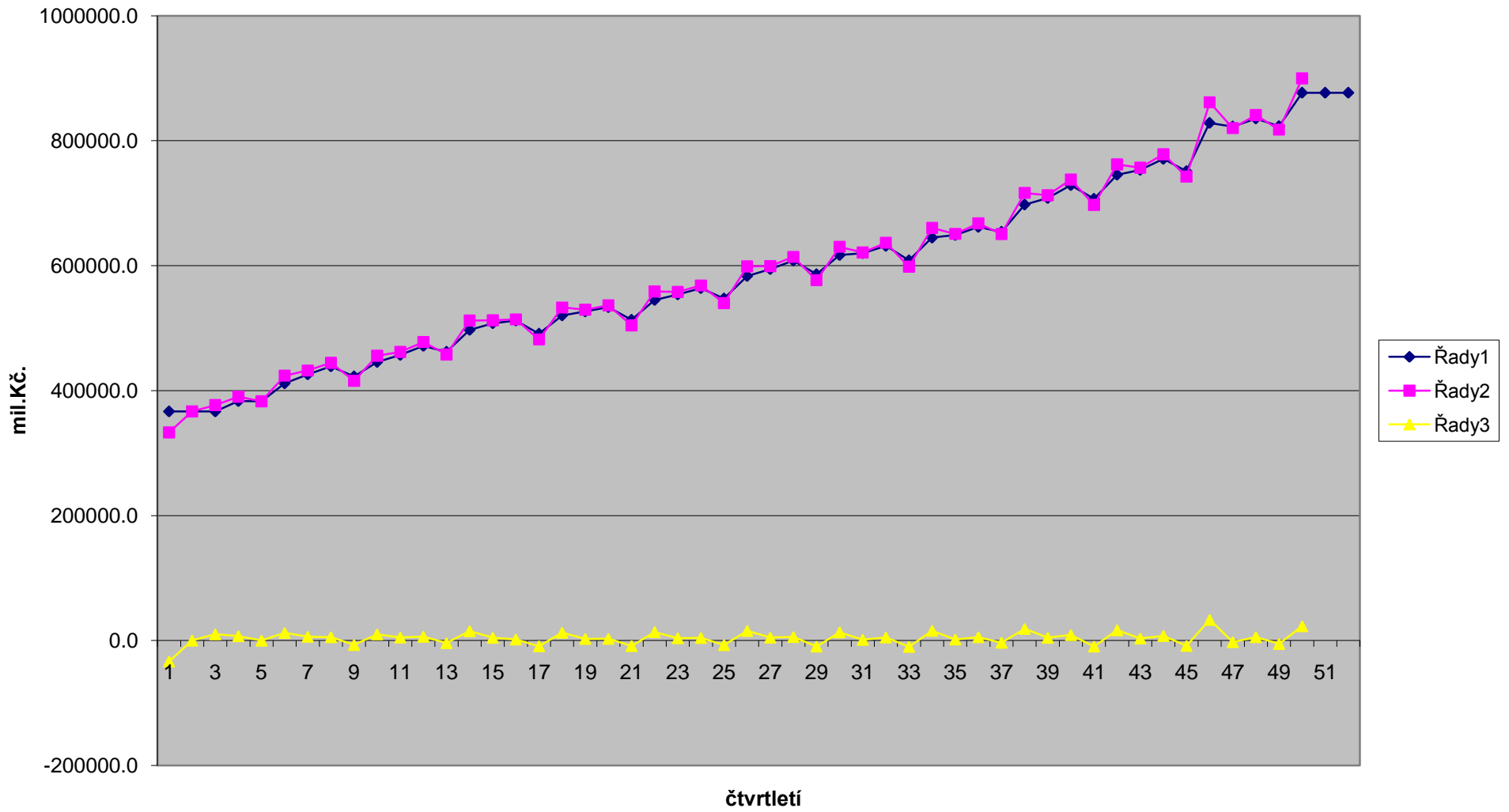
pozorování	k	$y_{20-k}$	$\alpha^k$	$y_{20-k} \cdot \alpha^k$	$k \cdot y_{20-k} \cdot \alpha^k$	$k \cdot \alpha^k$	$k^2 \cdot \alpha^k$
1	19	186	0.00114	0.212	4.0284	0.021658	0.41150
2	18	191	0.00163	0.311	5.5985	0.029311	0.52761
3	17	196	0.00233	0.456	7.7512	0.039547	0.67230
4	16	206	0.00332	0.685	10.9536	0.053173	0.85076
5	15	215	0.00475	1.021	15.3109	0.071213	1.06820
6	14	225	0.00678	1.526	21.3640	0.094951	1.32932
7	13	235	0.00969	2.277	29.5996	0.125956	1.63742
8	12	248	0.01384	3.433	41.1917	0.166095	1.99315
9	11	255	0.01977	5.042	55.4640	0.217506	2.39257
10	10	266	0.02825	7.514	75.1384	0.282475	2.82475
11	9	278	0.04035	11.218	100.9647	0.363182	3.26864
12	8	295	0.05765	17.006	136.0493	0.461184	3.68947
13	7	313	0.08235	25.777	180.4383	0.576480	4.03536
14	6	331	0.11765	38.942	233.6509	0.705894	4.23536
15	5	350	0.16807	58.825	294.1225	0.840350	4.20175
16	4	368	0.24010	88.357	353.4272	0.960400	3.84160
17	3	390	0.34300	133.770	401.3100	1.029000	3.08700
18	2	406	0.49000	198.940	397.8800	0.980000	1.96000
19	1	423	0.70000	296.100	296.1000	0.700000	0.70000
20	0	438	1.00000	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 $y_{20-k-1}$	predikce hodnota	$S_t^{[1]}$	$S_t^{[2]}$		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

# Brown1HDP





alfa =	0.7
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DATE	NOBS	HDFCR	$\alpha^k$	$k \cdot \alpha^k$	$y_k \cdot \alpha^k$	$S_t^{[1]}$
1995Q1	1	332995	0.70000	0.7000	233096.50	332995.0
1995Q2	2	366618	0.49000	0.9800	179642.82	356531.1
1995Q3	3	376688	0.34300	1.0290	129203.98	370640.9
1995Q4	4	390221	0.24010	0.9604	93692.06	384347.0
1996Q1	5	382859	0.16807	0.8404	64347.11	383305.4
1996Q2	6	423953	0.11765	0.7059	49877.65	411758.7
1996Q3	7	432152	0.08235	0.5765	35589.58	426034.0
1996Q4	8	444324	0.05765	0.4612	25614.39	438837.0
1997Q1	9	415593	0.04035	0.3632	16770.68	422566.2
1997Q2	10	455790	0.02825	0.2825	12874.94	445822.9
1997Q3	11	461902	0.01977	0.2175	9133.31	457078.3
1997Q4	12	477809	0.01384	0.1661	6613.49	471589.8
1998Q1	13	457925	0.00969	0.1260	4436.79	462024.4
1998Q2	14	512225	0.00678	0.0950	3474.03	497164.8
1998Q3	15	512408	0.00475	0.0712	2432.69	507835.0
1998Q4	16	513925	0.00332	0.0532	1707.92	512098.0
1999Q1	17	481895	0.00233	0.0395	1121.03	490955.9
1999Q2	18	532968	0.00163	0.0293	867.89	520364.4
1999Q3	19	529465	0.00114	0.0217	603.53	526734.8
1999Q4	20	536469	0.00080	0.0160	428.06	533548.7
2000Q1	21	504479	0.00056	0.0117	281.77	513199.9
2000Q2	22	558691	0.00039	0.0086	218.44	545043.7
2000Q3	23	557780	0.00027	0.0063	152.66	553959.1
2000Q4	24	568219	0.00019	0.0046	108.86	563941.0
2001Q1	25	540124	0.00013	0.0034	72.43	547269.1
2001Q2	26	598842	0.00009	0.0024	56.22	583370.1
2001Q3	27	599262	0.00007	0.0018	39.38	594494.4
2001Q4	28	613986	0.00005	0.0013	28.24	608138.5
2002Q1	29	576665	0.00003	0.0009	18.57	586107.1
2002Q2	30	630141	0.00002	0.0007	14.20	616930.8
2002Q3	31	621004	0.00002	0.0005	9.80	619782.0
2002Q4	32	636622	0.00001	0.0004	7.03	631570.0
2003Q1	33	598385	0.00001	0.0003	4.63	608340.5
2003Q2	34	660401	0.00001	0.0002	3.57	644782.9
2003Q3	35	650791	0.00000	0.0001	2.47	648988.6
2003Q4	36	667533	0.00000	0.0001	1.77	661969.7
2004Q1	37	650616	0.00000	0.0001	1.21	654022.1
2004Q2	38	716444	0.00000	0.0000	0.93	697717.4
2004Q3	39	712711	0.00000	0.0000	0.65	708212.9
2004Q4	40	737591	0.00000	0.0000	0.47	728777.6
2005Q1	41	697345	0.00000	0.0000	0.31	706774.8
2005Q2	42	762115	0.00000	0.0000	0.24	745512.9

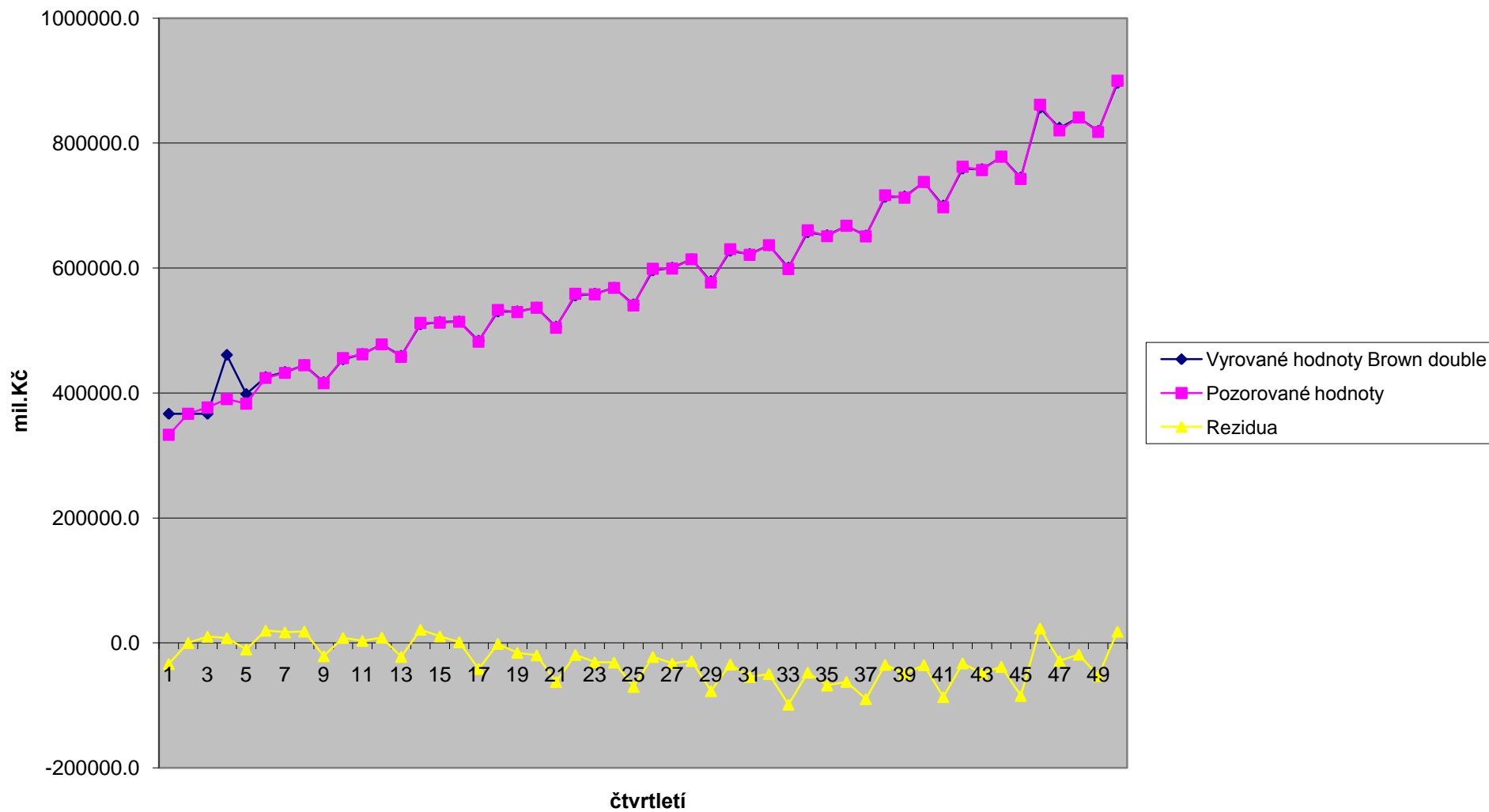
2005Q3	43	756632	0.00000	0.0000	0.17	753296.3
2005Q4	44	778304	0.00000	0.0000	0.12	770801.7
2006Q1	45	742621	0.00000	0.0000	0.08	751075.2
2006Q2	46	861462	0.00000	0.0000	0.06	828346.0
2006Q3	47	820093	0.00000	0.0000	0.04	822568.9
2006Q4	48	841083	0.00000	0.0000	0.03	835528.8
2007Q1	49	817704	0.00000	0.0000	0.02	823051.4
2007Q2	50	899674	0.00000	0.0000	0.02	876687.2
2007Q3	51		0.00000	0.0000		
2007Q4	52		0.00000	0.0000		
			2.333	7.78	872552.85	
			$\Sigma \alpha^k$	$\Sigma \alpha^k$	$\Sigma k \cdot \alpha^k y_{n-k}$	

		čítatel	jmenovatel	
parametr	b =	#REF!	#REF!	#REF!

predikce= vyrovnání		
$yv_k$	HDPCR	rezidua
366618.0	332995	-33623.0
366618.0	366618	0.0
366618.0	376688	10070.0
383140.1	390221	7080.9
382943.3	382859	-84.3
411650.1	423953	12302.9
426001.4	432152	6150.6
438827.2	444324	5496.8
422563.3	415593	-6970.3
445822.0	455790	9968.0
457078.0	461902	4824.0
471589.7	477809	6219.3
462024.4	457925	-4099.4
497164.8	512225	15060.2
507835.0	512408	4573.0
512098.0	513925	1827.0
490955.9	481895	-9060.9
520364.4	532968	12603.6
526734.8	529465	2730.2
533548.7	536469	2920.3
513199.9	504479	-8720.9
545043.7	558691	13647.3
553959.1	557780	3820.9
563941.0	568219	4278.0
547269.1	540124	-7145.1
583370.1	598842	15471.9
594494.4	599262	4767.6
608138.5	613986	5847.5
586107.1	576665	-9442.1
616930.8	630141	13210.2
619782.0	621004	1222.0
631570.0	636622	5052.0
608340.5	598385	-9955.5
644782.9	660401	15618.1
648988.6	650791	1802.4
661969.7	667533	5563.3
654022.1	650616	-3406.1
697717.4	716444	18726.6
708212.9	712711	4498.1
728777.6	737591	8813.4
706774.8	697345	-9429.8
745512.9	762115	16602.1

753296.3	756632	3335.7
770801.7	778304	7502.3
751075.2	742621	-8454.2
828346.0	861462	33116.0
822568.9	820093	-2475.9
835528.8	841083	5554.2
823051.4	817704	-5347.4
876687.2	899674	22986.8
876687.2		
876687.2		
30973830	29415504	195048

### Brownovo expovyrování- dvojité C943 HDP ČR



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

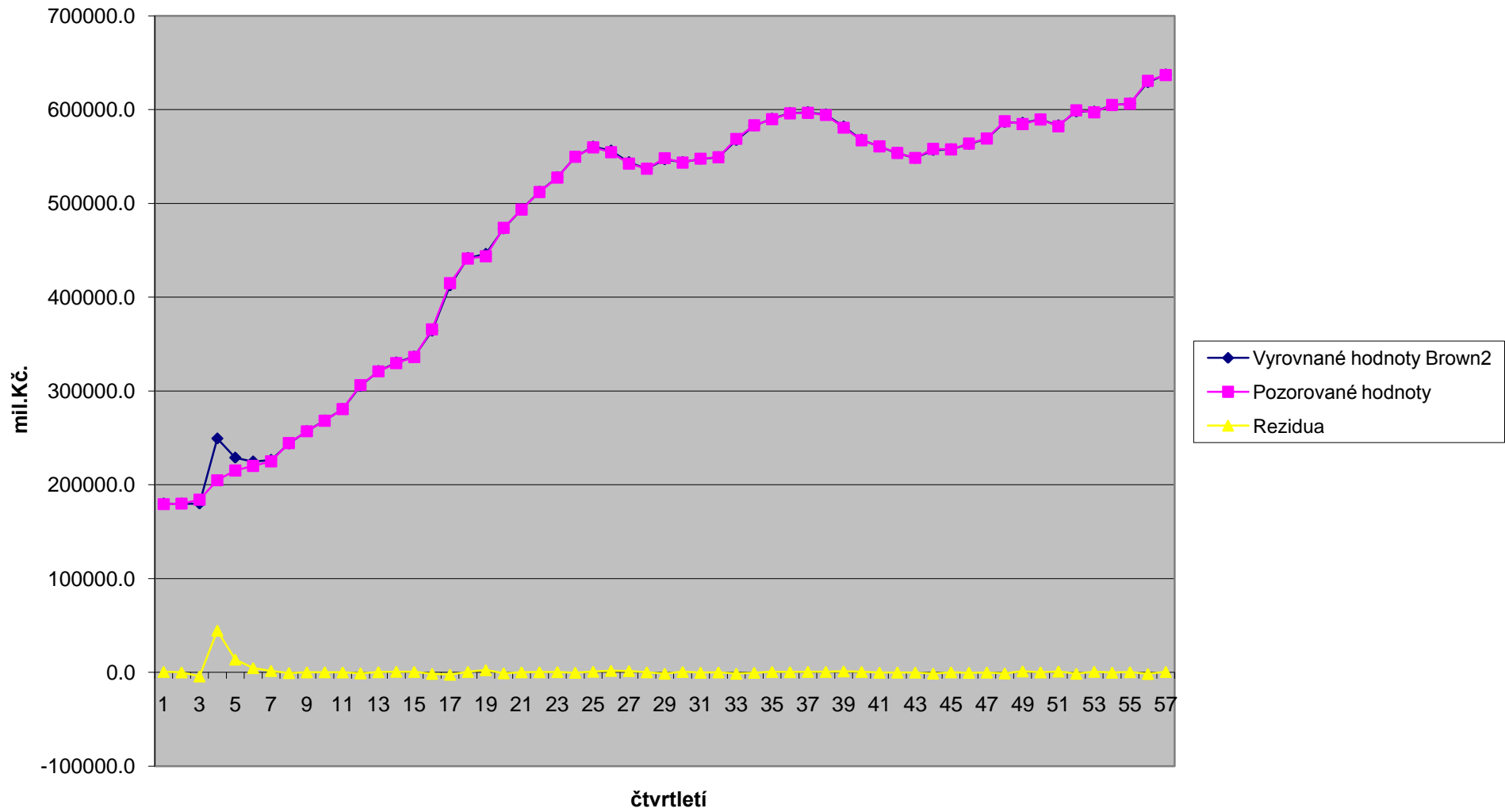


0.00	0.126	755417.1	752779.9	805556.7	758054.3	756632
0.00	0.105	773726.6	769537.3	816404.4	777916.0	778304
0.00	0.088	748842.1	752981.2	827252.2	744703.1	742621
0.00	0.074	838938.0	821746.7	838099.9	856129.4	861462
0.00	0.062	823862.0	823438.9	848947.6	824285.1	820093
0.00	0.051	837638.8	834798.8	859795.4	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 <sub>k</sub>	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

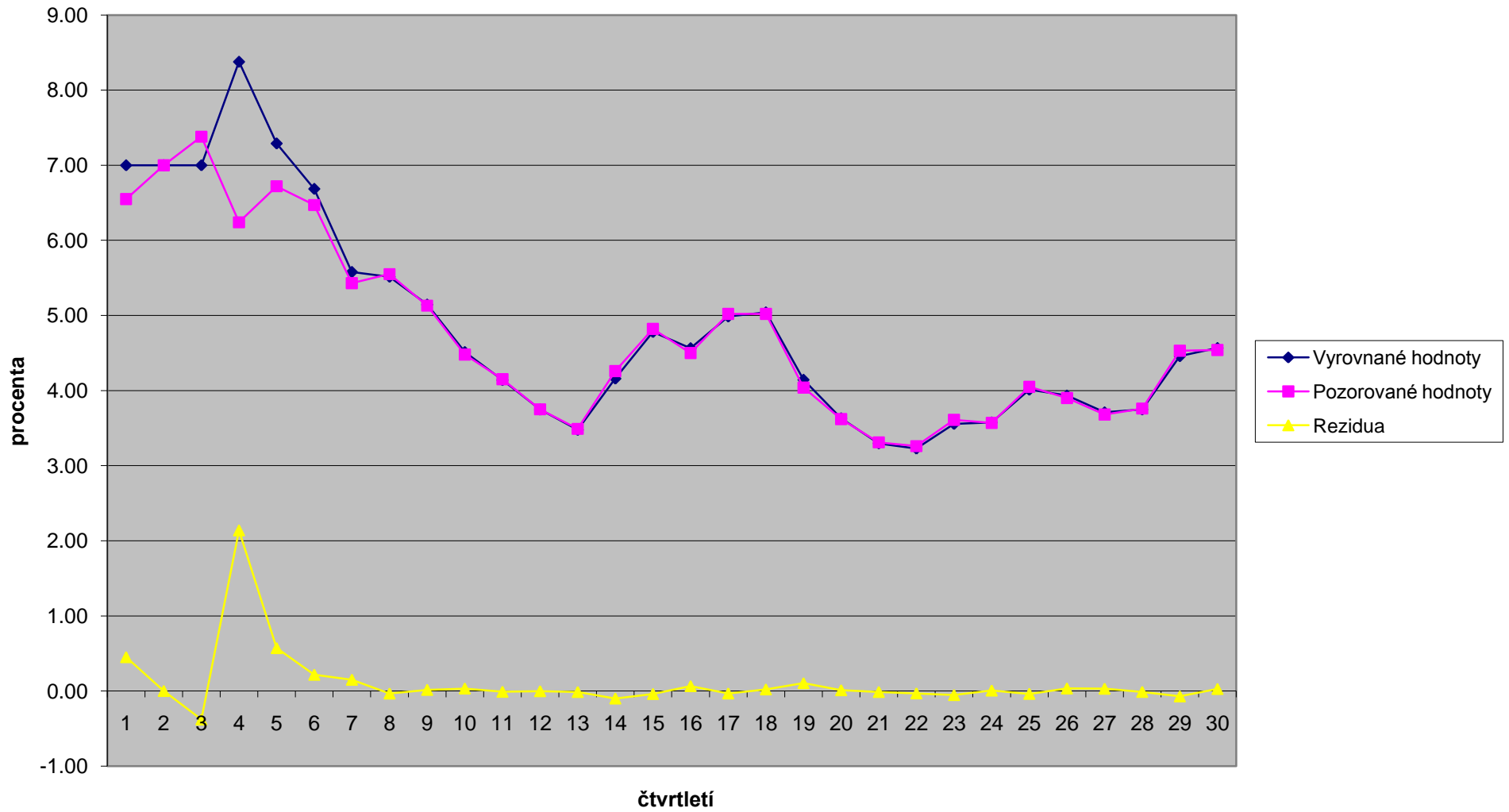
550726.6	553214.3	543784.8	548239.0	548450.7	-211.7	211.7
555982.3	555207.3	549997.1	556757.4	558026.2	-1268.8	1268.8
557033.6	556522.3	556209.4	557545.0	557442.5	102.5	102.5
561810.5	560329.8	562421.7	563291.2	563668.2	-377.0	377.0
567114.2	565214.6	568634.1	569013.9	569176.8	-162.9	162.9
581838.6	577183.9	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.vyrovňávání - 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>