

## Die Prozedur VARMAX

Anzahl Beobachtungen	169
Anzahl fehlender Paare	0

Einfache beschreibende Statistiken						
Variable	Typ	N	Mittelwert	Standard Abweichung	Min	Max
ppi_logfd	Abhängig	169	0.00199	0.00305	-0.01175	0.01739
pri_num	Abhängig	169	0.00039	0.00803	-0.02062	0.02289
costs_log	Abhängig	169	4.53370	4.24887	0.00000	12.02550

Granger-Kausalität-Wald-Test			
Test	DF	Chi-Quadrat	Pr > ChiSq
1	12	9.14	0.6912
2	12	8.10	0.7770
3	24	22.02	0.5779
4	12	12.85	0.3799
5	12	11.48	0.4886

Test 1: Gruppe 1 Variablen:	ppi_logfd
Gruppe 2 Variablen:	costs_log

Test 2: Gruppe 1 Variablen:	ppi_logfd
Gruppe 2 Variablen:	pri_num

Test 3: Gruppe 1 Variablen:	ppi_logfd pri_num
Gruppe 2 Variablen:	costs_log

Test 4: Gruppe 1 Variablen:	pri_num
Gruppe 2 Variablen:	costs_log

Test 5: Gruppe 1 Variablen:	pri_num
Gruppe 2 Variablen:	ppi_logfd

Kleinstes Informationskriterium basierend auf HQC									
Lag	MA0	MA1	MA2	MA3	MA4	MA5	MA6	MA7	MA8
AR 0	-18.30654	-18.19577	-18.17411	-18.08471	-18.01593	-17.93113	-17.86121	-17.80528	-17.76434
AR 1	-18.65249	-18.68263	-18.595	-18.4923	-18.40033	-18.26262	-18.16739	-18.06122	-17.95652
AR 2	-18.63506	-18.61352	-18.47189	-18.35591	-18.24931	-18.11467	-18.02521	-17.93948	-17.83732
AR 3	-18.47681	-18.50119	-18.35874	-18.23911	-18.13384	-17.99772	-17.93047	-17.86664	-17.75399
AR 4	-18.3214	-18.37232	-18.22358	-18.12714	-18.01591	-17.88635	-17.79234	-17.76889	-17.65607
AR 5	-18.1897	-18.23195	-18.08425	-17.99453	-17.90829	-17.75608	-17.68742	-17.67194	-17.60301
AR 6	-18.09577	-18.14634	-17.98748	-17.89884	-17.84149	-17.68394	-17.73061	-17.65898	-17.6095
AR 7	-17.94914	-18.06346	-17.90795	-17.8198	-17.73102	-17.62608	-17.67135	-17.56846	-17.52199
AR 8	-17.85379	-18.02589	-17.86475	-17.75499	-17.81678	-17.70988	-17.65722	-17.57383	-17.50622

## Die Prozedur VARMAX

Modelltyp	VAR(12)
Schätzmethode	Kleinste Quadrateschätzer

Konstantenschätzer	
Variable	Konstant
ppi_logfd	0.00342
pri_num	0.00274
costs_log	4.15578

AR-Koeffizientenschätzer				
Lag	Variable	ppi_logfd	pri_num	costs_log
1	ppi_logfd	-0.06424	0.00152	-0.00006
	pri_num	-0.24848	0.35387	0.00006
	costs_log	79.39080	19.31928	0.02681
2	ppi_logfd	0.07980	-0.03353	-0.00008
	pri_num	-0.23274	0.32884	0.00016
	costs_log	-11.32457	28.40562	-0.04139
3	ppi_logfd	0.03893	0.04138	-0.00002
	pri_num	-0.06824	0.02895	-0.00015
	costs_log	73.12932	-58.77897	-0.05043
4	ppi_logfd	-0.04534	0.03806	-0.00000
	pri_num	0.11363	-0.02274	-0.00000
	costs_log	-218.59770	-74.17641	0.13246
5	ppi_logfd	-0.00050	0.00341	-0.00005
	pri_num	-0.12849	0.10581	0.00001
	costs_log	74.14582	-38.09200	-0.12822
6	ppi_logfd	-0.09361	-0.01483	-0.00004
	pri_num	0.02157	0.16346	-0.00011
	costs_log	122.16404	102.02203	0.11994
7	ppi_logfd	-0.03177	-0.04804	-0.00004
	pri_num	-0.30449	-0.00632	-0.00017
	costs_log	81.64415	4.74083	0.06148
8	ppi_logfd	-0.05069	0.03866	-0.00010
	pri_num	-0.15210	0.00985	-0.00028
	costs_log	126.02521	-53.61309	-0.00199
9	ppi_logfd	-0.04176	-0.06201	0.00002
	pri_num	0.14602	-0.12557	-0.00001
	costs_log	-116.17069	80.48011	0.24596
10	ppi_logfd	0.06041	0.01693	0.00002
	pri_num	-0.02242	-0.06014	0.00002
	costs_log	9.35339	38.53365	-0.07269
11	ppi_logfd	0.09271	-0.05034	-0.00000
	pri_num	-0.10464	0.03907	0.00011
	costs_log	32.16663	-141.79637	-0.10656
12	ppi_logfd	0.31490	0.05546	-0.00007
	pri_num	0.30401	0.01545	0.00008
	costs_log	-202.17055	34.60804	-0.11138

Schematische Darstellung der Parameterschätzer													
Variable/Lag	C	AR1	AR2	AR3	AR4	AR5	AR6	AR7	AR8	AR9	AR10	AR11	AR12
ppi_logfd	+	...	...	...	...	...	...	...	...	...	...	...	+
pri_num	.	..+	..+	...	...	...	...	...	..-	...	...	...	...
costs_log	+	...	...	...	...	...	...	...	...	..+	...	..-	...
+ ist > 2*Std.fehler, - ist < -2*Std.fehler, . ist zwischen, * ist N/A													

Modellparameterschätzwerte						
Gleichung	Parameter	Schätzung	Standard Fehler	t-Wert	Pr >  t	Variable
ppi_logfd	CONST1	0.00342	0.00147	2.33	0.0213	1
	AR1_1_1	-0.06424	0.08521	-0.75	0.4524	ppi_logfd(t-1)
	AR1_1_2	0.00152	0.04711	0.03	0.9744	pri_num(t-1)
	AR1_1_3	-0.00006	0.00006	-0.95	0.3445	costs_log(t-1)
	AR2_1_1	0.07980	0.08538	0.93	0.3519	ppi_logfd(t-2)
	AR2_1_2	-0.03353	0.04871	-0.69	0.4926	pri_num(t-2)
	AR2_1_3	-0.00008	0.00006	-1.30	0.1967	costs_log(t-2)
	AR3_1_1	0.03893	0.08706	0.45	0.6556	ppi_logfd(t-3)
	AR3_1_2	0.04138	0.05105	0.81	0.4192	pri_num(t-3)
	AR3_1_3	-0.00002	0.00006	-0.33	0.7408	costs_log(t-3)
	AR4_1_1	-0.04534	0.08643	-0.52	0.6008	ppi_logfd(t-4)
	AR4_1_2	0.03806	0.04794	0.79	0.4289	pri_num(t-4)
	AR4_1_3	-0.00000	0.00006	-0.08	0.9399	costs_log(t-4)
	AR5_1_1	-0.00050	0.08651	-0.01	0.9954	ppi_logfd(t-5)
	AR5_1_2	0.00341	0.04790	0.07	0.9434	pri_num(t-5)
	AR5_1_3	-0.00005	0.00006	-0.78	0.4385	costs_log(t-5)
	AR6_1_1	-0.09361	0.08545	-1.10	0.2755	ppi_logfd(t-6)
	AR6_1_2	-0.01483	0.04720	-0.31	0.7539	pri_num(t-6)
	AR6_1_3	-0.00004	0.00006	-0.69	0.4884	costs_log(t-6)
	AR7_1_1	-0.03177	0.08588	-0.37	0.7121	ppi_logfd(t-7)
	AR7_1_2	-0.04804	0.04720	-1.02	0.3108	pri_num(t-7)
	AR7_1_3	-0.00004	0.00006	-0.70	0.4829	costs_log(t-7)
	AR8_1_1	-0.05069	0.08730	-0.58	0.5626	ppi_logfd(t-8)
	AR8_1_2	0.03866	0.04709	0.82	0.4133	pri_num(t-8)
	AR8_1_3	-0.00010	0.00006	-1.56	0.1220	costs_log(t-8)
	AR9_1_1	-0.04176	0.08777	-0.48	0.6351	ppi_logfd(t-9)
	AR9_1_2	-0.06201	0.04731	-1.31	0.1924	pri_num(t-9)
	AR9_1_3	0.00002	0.00006	0.27	0.7886	costs_log(t-9)
	AR10_1_1	0.06041	0.08842	0.68	0.4958	ppi_logfd(t-10)
	AR10_1_2	0.01693	0.04800	0.35	0.7249	pri_num(t-10)
	AR10_1_3	0.00002	0.00007	0.26	0.7990	costs_log(t-10)
	AR11_1_1	0.09271	0.08709	1.06	0.2892	ppi_logfd(t-11)
	AR11_1_2	-0.05034	0.04629	-1.09	0.2790	pri_num(t-11)
	AR11_1_3	-0.00000	0.00006	-0.03	0.9761	costs_log(t-11)
	AR12_1_1	0.31490	0.08565	3.68	0.0004	ppi_logfd(t-12)
	AR12_1_2	0.05546	0.04382	1.27	0.2081	pri_num(t-12)
	AR12_1_3	-0.00007	0.00006	-1.04	0.3023	costs_log(t-12)
pri_num	CONST2	0.00274	0.00282	0.97	0.3336	1
	AR1_2_1	-0.24848	0.16380	-1.52	0.1319	ppi_logfd(t-1)
	AR1_2_2	0.35387	0.09056	3.91	0.0002	pri_num(t-1)
	AR1_2_3	0.00006	0.00012	0.49	0.6269	costs_log(t-1)
	AR2_2_1	-0.23274	0.16411	-1.42	0.1587	ppi_logfd(t-2)
	AR2_2_2	0.32884	0.09363	3.51	0.0006	pri_num(t-2)
	AR2_2_3	0.00016	0.00012	1.33	0.1857	costs_log(t-2)
	AR3_2_1	-0.06824	0.16735	-0.41	0.6842	ppi_logfd(t-3)
	AR3_2_2	0.02895	0.09813	0.30	0.7685	pri_num(t-3)
	AR3_2_3	-0.00015	0.00012	-1.23	0.2195	costs_log(t-3)
	AR4_2_1	0.11363	0.16614	0.68	0.4953	ppi_logfd(t-4)
	AR4_2_2	-0.02274	0.09216	-0.25	0.8055	pri_num(t-4)
	AR4_2_3	-0.00000	0.00012	-0.03	0.9794	costs_log(t-4)
	AR5_2_1	-0.12849	0.16629	-0.77	0.4412	ppi_logfd(t-5)

Modellparameterschätzwerte						
Gleichung	Parameter	Schätzung	Standard Fehler	t-Wert	Pr >  t	Variable
	AR5_2_2	0.10581	0.09208	1.15	0.2528	pri_num(t-5)
	AR5_2_3	0.00001	0.00012	0.11	0.9143	costs_log(t-5)
	AR6_2_1	0.02157	0.16426	0.13	0.8958	ppi_logfd(t-6)
	AR6_2_2	0.16346	0.09073	1.80	0.0741	pri_num(t-6)
	AR6_2_3	-0.00011	0.00012	-0.88	0.3799	costs_log(t-6)
	AR7_2_1	-0.30449	0.16508	-1.84	0.0676	ppi_logfd(t-7)
	AR7_2_2	-0.00632	0.09074	-0.07	0.9446	pri_num(t-7)
	AR7_2_3	-0.00017	0.00012	-1.43	0.1566	costs_log(t-7)
	AR8_2_1	-0.15210	0.16781	-0.91	0.3666	ppi_logfd(t-8)
	AR8_2_2	0.00985	0.09053	0.11	0.9136	pri_num(t-8)
	AR8_2_3	-0.00028	0.00012	-2.29	0.0239	costs_log(t-8)
	AR9_2_1	0.14602	0.16871	0.87	0.3885	ppi_logfd(t-9)
	AR9_2_2	-0.12557	0.09094	-1.38	0.1699	pri_num(t-9)
	AR9_2_3	-0.00001	0.00012	-0.11	0.9149	costs_log(t-9)
	AR10_2_1	-0.02242	0.16997	-0.13	0.8953	ppi_logfd(t-10)
	AR10_2_2	-0.06014	0.09228	-0.65	0.5158	pri_num(t-10)
	AR10_2_3	0.00002	0.00013	0.15	0.8779	costs_log(t-10)
	AR11_2_1	-0.10464	0.16740	-0.63	0.5331	ppi_logfd(t-11)
	AR11_2_2	0.03907	0.08898	0.44	0.6614	pri_num(t-11)
	AR11_2_3	0.00011	0.00012	0.93	0.3565	costs_log(t-11)
	AR12_2_1	0.30401	0.16464	1.85	0.0673	ppi_logfd(t-12)
	AR12_2_2	0.01545	0.08423	0.18	0.8547	pri_num(t-12)
	AR12_2_3	0.00008	0.00012	0.63	0.5327	costs_log(t-12)
costs_log	CONST3	4.15578	2.05874	2.02	0.0458	1
	AR1_3_1	79.39080	119.48870	0.66	0.5077	ppi_logfd(t-1)
	AR1_3_2	19.31928	66.05809	0.29	0.7704	pri_num(t-1)
	AR1_3_3	0.02681	0.08958	0.30	0.7652	costs_log(t-1)
	AR2_3_1	-11.32457	119.71440	-0.09	0.9248	ppi_logfd(t-2)
	AR2_3_2	28.40562	68.30113	0.42	0.6782	pri_num(t-2)
	AR2_3_3	-0.04139	0.08882	-0.47	0.6421	costs_log(t-2)
	AR3_3_1	73.12932	122.07336	0.60	0.5503	ppi_logfd(t-3)
	AR3_3_2	-58.77897	71.58005	-0.82	0.4132	pri_num(t-3)
	AR3_3_3	-0.05043	0.08950	-0.56	0.5742	costs_log(t-3)
	AR4_3_1	-218.59770	121.19403	-1.80	0.0738	ppi_logfd(t-4)
	AR4_3_2	-74.17641	67.22415	-1.10	0.2721	pri_num(t-4)
	AR4_3_3	0.13246	0.09003	1.47	0.1438	costs_log(t-4)
	AR5_3_1	74.14582	121.30141	0.61	0.5422	ppi_logfd(t-5)
	AR5_3_2	-38.09200	67.17259	-0.57	0.5717	pri_num(t-5)
	AR5_3_3	-0.12822	0.08840	-1.45	0.1496	costs_log(t-5)
	AR6_3_1	122.16404	119.82336	1.02	0.3100	ppi_logfd(t-6)
	AR6_3_2	102.02203	66.18339	1.54	0.1258	pri_num(t-6)
	AR6_3_3	0.11994	0.08948	1.34	0.1826	costs_log(t-6)
	AR7_3_1	81.64415	120.41731	0.68	0.4991	ppi_logfd(t-7)
	AR7_3_2	4.74083	66.19039	0.07	0.9430	pri_num(t-7)
	AR7_3_3	0.06148	0.08954	0.69	0.4937	costs_log(t-7)
	AR8_3_1	126.02521	122.41090	1.03	0.3053	ppi_logfd(t-8)
	AR8_3_2	-53.61309	66.03621	-0.81	0.4185	pri_num(t-8)
	AR8_3_3	-0.00199	0.08906	-0.02	0.9822	costs_log(t-8)
	AR9_3_1	-116.17069	123.07140	-0.94	0.3471	ppi_logfd(t-9)
	AR9_3_2	80.48011	66.33416	1.21	0.2274	pri_num(t-9)
	AR9_3_3	0.24596	0.09070	2.71	0.0077	costs_log(t-9)

Modellparameterschätzwerte						
Gleichung	Parameter	Schätzung	Standard Fehler	t-Wert	Pr >  t	Variable
	AR10_3_1	9.35339	123.98788	0.08	0.9400	ppi_logfd(t-10)
	AR10_3_2	38.53365	67.31151	0.57	0.5681	pri_num(t-10)
	AR10_3_3	-0.07269	0.09190	-0.79	0.4305	costs_log(t-10)
	AR11_3_1	32.16663	122.11317	0.26	0.7927	ppi_logfd(t-11)
	AR11_3_2	-141.79637	64.90910	-2.18	0.0309	pri_num(t-11)
	AR11_3_3	-0.10656	0.09017	-1.18	0.2396	costs_log(t-11)
	AR12_3_1	-202.17055	120.09619	-1.68	0.0949	ppi_logfd(t-12)
	AR12_3_2	34.60804	61.43989	0.56	0.5743	pri_num(t-12)
	AR12_3_3	-0.11138	0.08955	-1.24	0.2160	costs_log(t-12)

Kovarianzen der Innovationen			
Variable	ppi_logfd	pri_num	costs_log
ppi_logfd	0.00001	0.00000	0.00019
pri_num	0.00000	0.00003	0.00251
costs_log	0.00019	0.00251	17.77363

Log-Likelihood	1324.197
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Informationskriterien	
AICC	-1706.39
HQC	-2269.17
AIC	-2414.39
SBC	-2056.81
FPEC	9.931E-9

Kreuzkovarianzen der Residuen				
Lag	Variable	ppi_logfd	pri_num	costs_log
0	ppi_logfd	0.00001	0.00000	0.00014
	pri_num	0.00000	0.00003	0.00192
	costs_log	0.00014	0.00192	13.58494
1	ppi_logfd	0.00000	-0.00000	-0.00004
	pri_num	0.00000	-0.00000	-0.00033
	costs_log	-0.00010	0.00029	-0.35941
2	ppi_logfd	0.00000	-0.00000	0.00031
	pri_num	-0.00000	0.00000	0.00038
	costs_log	0.00041	-0.00099	-0.10659
3	ppi_logfd	0.00000	0.00000	0.00084
	pri_num	0.00000	0.00000	0.00133
	costs_log	-0.00002	-0.00072	0.58151
4	ppi_logfd	0.00000	-0.00000	0.00017
	pri_num	0.00000	-0.00000	-0.00102
	costs_log	-0.00022	-0.00033	0.61821
5	ppi_logfd	-0.00000	0.00000	-0.00012
	pri_num	0.00000	0.00000	-0.00080
	costs_log	0.00021	0.00091	-0.38327
6	ppi_logfd	0.00000	-0.00000	-0.00050
	pri_num	0.00000	-0.00000	0.00050
	costs_log	0.00022	-0.00064	0.05001
7	ppi_logfd	0.00000	0.00000	0.00014
	pri_num	-0.00000	-0.00000	-0.00027

Kreuzkovarianzen der Residuen				
Lag	Variable	ppi_logfd	pri_num	costs_log
	costs_log	-0.00041	0.00037	-0.61308
8	ppi_logfd	0.00000	-0.00000	0.00000
	pri_num	0.00000	0.00000	-0.00023
	costs_log	0.00039	0.00032	-1.06761
9	ppi_logfd	-0.00000	-0.00000	-0.00009
	pri_num	-0.00000	0.00000	0.00020
	costs_log	-0.00070	-0.00078	0.86004
10	ppi_logfd	0.00000	0.00000	-0.00065
	pri_num	-0.00000	-0.00000	-0.00113
	costs_log	0.00053	0.00064	0.75210
11	ppi_logfd	0.00000	-0.00000	-0.00051
	pri_num	-0.00000	0.00000	-0.00082
	costs_log	0.00039	-0.00001	-0.78886
12	ppi_logfd	-0.00000	-0.00000	-0.00006
	pri_num	-0.00000	0.00000	-0.00111
	costs_log	-0.00024	-0.00035	-0.95710
13	ppi_logfd	-0.00000	0.00000	0.00048
	pri_num	0.00000	-0.00000	0.00221
	costs_log	0.00143	0.00121	0.34648

Kreuzkorrelationen der Residuen				
Lag	Variable	ppi_logfd	pri_num	costs_log
0	ppi_logfd	1.00000	0.09318	0.01489
	pri_num	0.09318	1.00000	0.10291
	costs_log	0.01489	0.10291	1.00000
1	ppi_logfd	0.01572	-0.01238	-0.00371
	pri_num	0.01412	-0.00146	-0.01796
	costs_log	-0.01076	0.01571	-0.02646
2	ppi_logfd	0.00449	-0.00862	0.03243
	pri_num	-0.05691	0.03426	0.02059
	costs_log	0.04257	-0.05325	-0.00785
3	ppi_logfd	0.01056	0.01435	0.08671
	pri_num	0.01520	0.03443	0.07137
	costs_log	-0.00215	-0.03855	0.04281
4	ppi_logfd	0.01643	-0.00296	0.01761
	pri_num	0.05408	-0.06107	-0.05460
	costs_log	-0.02316	-0.01788	0.04551
5	ppi_logfd	-0.02601	0.04061	-0.01260
	pri_num	0.01428	0.03590	-0.04300
	costs_log	0.02214	0.04883	-0.02821
6	ppi_logfd	0.06369	-0.07941	-0.05185
	pri_num	0.00688	-0.04843	0.02694
	costs_log	0.02239	-0.03426	0.00368
7	ppi_logfd	0.02188	0.00277	0.01484
	pri_num	-0.01774	-0.06203	-0.01445
	costs_log	-0.04253	0.01961	-0.04513
8	ppi_logfd	0.02399	-0.01294	0.00018
	pri_num	0.00614	0.04928	-0.01222
	costs_log	0.04004	0.01738	-0.07859
9	ppi_logfd	-0.00750	-0.02163	-0.00927
	pri_num	-0.01737	0.03409	0.01056
	costs_log	-0.07274	-0.04200	0.06331

Kreuzkorrelationen der Residuen				
Lag	Variable	ppi_logfd	pri_num	costs_log
10	ppi_logfd	0.03746	0.00741	-0.06677
	pri_num	-0.01889	-0.00927	-0.06042
	costs_log	0.05515	0.03420	0.05536
11	ppi_logfd	0.00407	-0.02196	-0.05309
	pri_num	-0.15880	0.01188	-0.04409
	costs_log	0.03975	-0.00031	-0.05807
12	ppi_logfd	-0.01700	-0.08772	-0.00660
	pri_num	-0.10044	0.11533	-0.05947
	costs_log	-0.02524	-0.01859	-0.07045
13	ppi_logfd	-0.10129	0.02258	0.04961
	pri_num	0.12119	-0.03546	0.11887
	costs_log	0.14753	0.06505	0.02550

Schematische Darstellung der Kreuzkorrelationen der Residuen														
Variable/Lag	0	1	2	3	4	5	6	7	8	9	10	11	12	13
ppi_logfd	+. .	...	...	...	...	...	...	...	...	...	...	...	...	...
pri_num	.+. .	...	...	...	...	...	...	...	...	...	...	...	...	...
costs_log	..+	...	...	...	...	...	...	...	...	...	...	...	...	...
+ ist > 2*Std.fehler, - ist < -2*Std.fehler, . ist zwischen														

Portmanteau-Test für Kreuzkorrelationen der Residuen			
Bis zu Lag	DF	Chi-Quadrat	Pr > ChiSq
13	9	46.10	<.0001

Univariates Modell ANOVA-Diagnose				
Variable	R-Quadrat	Standard Abweichung	F-Wert	Pr > F
ppi_logfd	0.2772	0.00301	1.28	0.1641
pri_num	0.6101	0.00578	5.22	<.0001
costs_log	0.2248	4.21588	0.97	0.5310

Univariates Modell Weißes-Rauschen-Diagnose					
Variable	Durbin Watson	Normalität		ARCH	
		Chi-Quadrat	Pr > ChiSq	F-Wert	Pr > F
ppi_logfd	1.96641	547.67	<.0001	0.05	0.8317
pri_num	1.99769	1.80	0.4059	0.45	0.5051
costs_log	2.02296	7.03	0.0298	0.04	0.8440

Univariates Modell AR-Diagnosen								
Variable	AR1		AR2		AR3		AR4	
	F-Wert	Pr > F	F-Wert	Pr > F	F-Wert	Pr > F	F-Wert	Pr > F
ppi_logfd	0.04	0.8454	0.03	0.9735	0.02	0.9973	0.02	0.9993
pri_num	0.00	0.9857	0.09	0.9137	0.11	0.9526	0.24	0.9146
costs_log	0.11	0.7383	0.11	0.8922	0.14	0.9387	0.26	0.9039

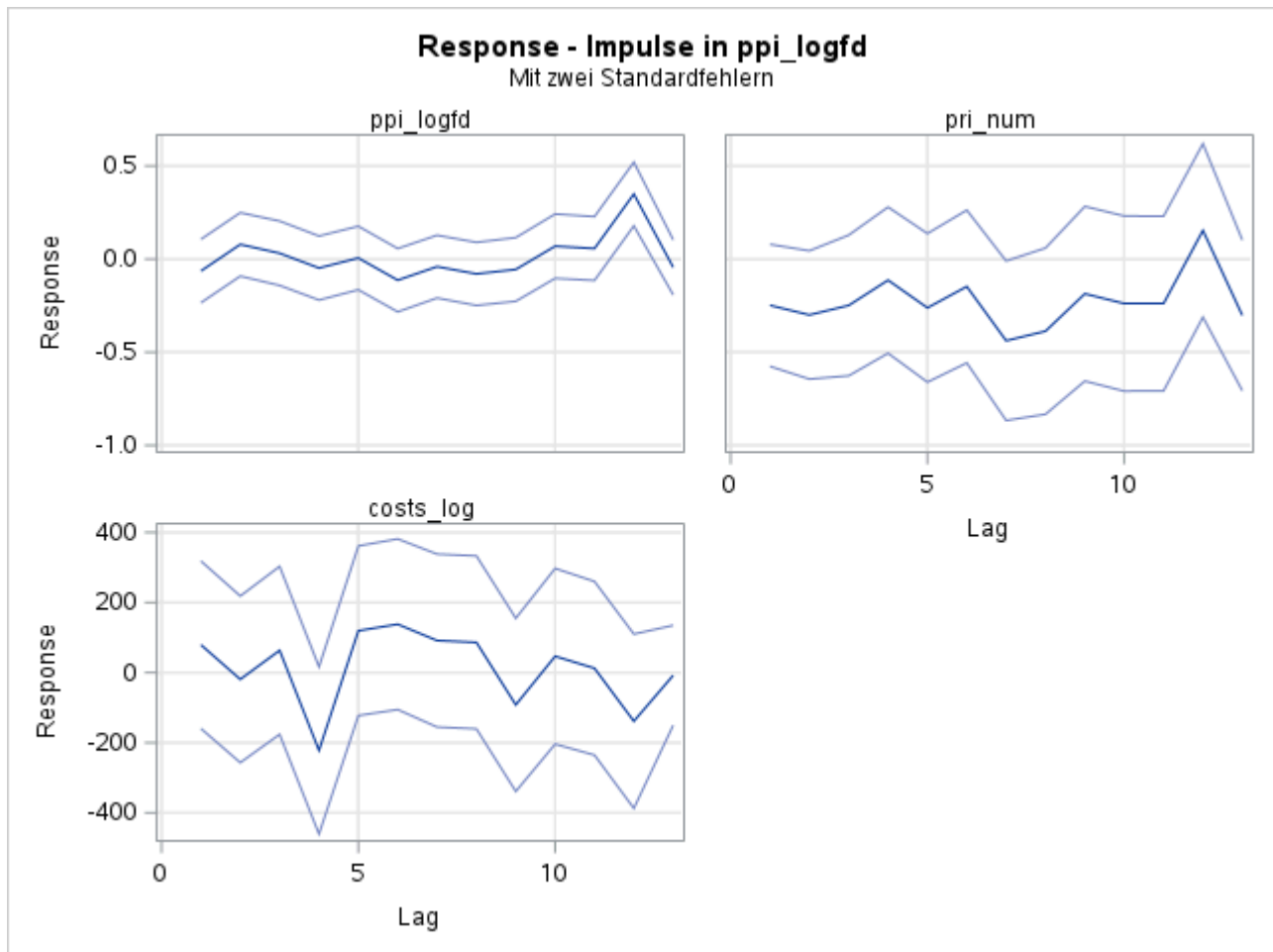
Orthogonalisierte Impuls-Response				
Lag	Variable Response\Impuls	ppi_logfd	pri_num	costs_log
0	ppi_logfd	0.00301	0.00000	0.00000
	pri_num	0.00054	0.00575	0.00000
	costs_log	0.06276	0.42989	4.19343

Orthogonalisierte Impuls-Response				
Lag	Variable Response\Impuls	ppi_logfd	pri_num	costs_log
1	ppi_logfd	-0.00020	-0.00002	-0.00025
	pri_num	-0.00055	0.00206	0.00025
	costs_log	0.25078	0.12269	0.11244
2	ppi_logfd	0.00021	-0.00023	-0.00033
	pri_num	-0.00064	0.00270	0.00084
	costs_log	-0.04087	0.18741	-0.18589
3	ppi_logfd	0.00011	0.00016	-0.00009
	pri_num	-0.00058	0.00183	-0.00011
	costs_log	0.16458	-0.26735	-0.22150
4	ppi_logfd	-0.00013	0.00018	-0.00004
	pri_num	-0.00020	0.00148	0.00029
	costs_log	-0.70057	-0.38634	0.53640
5	ppi_logfd	0.00003	0.00016	-0.00017
	pri_num	-0.00064	0.00161	0.00019
	costs_log	0.30972	-0.49854	-0.52643
6	ppi_logfd	-0.00033	0.00012	-0.00016
	pri_num	-0.00026	0.00199	-0.00014
	costs_log	0.45670	0.42181	0.41944
7	ppi_logfd	-0.00014	-0.00022	-0.00015
	pri_num	-0.00116	0.00171	-0.00063
	costs_log	0.27580	-0.00319	0.20954
8	ppi_logfd	-0.00023	0.00013	-0.00041
	pri_num	-0.00099	0.00195	-0.00100
	costs_log	0.23618	-0.25220	0.05014
9	ppi_logfd	-0.00020	-0.00035	0.00007
	pri_num	-0.00047	0.00096	-0.00033
	costs_log	-0.23671	0.38320	0.67372
10	ppi_logfd	0.00022	0.00010	0.00007
	pri_num	-0.00064	0.00088	-0.00016
	costs_log	0.15801	0.19307	-0.09267
11	ppi_logfd	0.00014	-0.00035	-0.00017
	pri_num	-0.00061	0.00115	0.00030
	costs_log	-0.03041	-0.70351	-0.39131
12	ppi_logfd	0.00107	0.00019	-0.00034
	pri_num	0.00057	0.00119	0.00012
	costs_log	-0.43748	-0.19699	-0.45723
13	ppi_logfd	-0.00014	-0.00005	-0.00006
	pri_num	-0.00081	0.00102	0.00010
	costs_log	-0.02810	-0.06150	0.14139

Prognosen						
Variable	Beob	Zeit	Prognose	Standard Fehler	95% Konfidenzgrenzen	
ppi_logfd	170	FEB2019	0.00328	0.00301	-0.00261	0.00917
	171	MAR2019	0.00282	0.00302	-0.00310	0.00875
	172	APR2019	0.00273	0.00306	-0.00326	0.00873
	173	MAY2019	0.00158	0.00307	-0.00443	0.00759
	174	JUN2019	0.00242	0.00307	-0.00360	0.00845
pri_num	175	JUL2019	0.00365	0.00308	-0.00239	0.00969
	170	FEB2019	0.00072	0.00578	-0.01061	0.01204
	171	MAR2019	0.00161	0.00617	-0.01047	0.01370

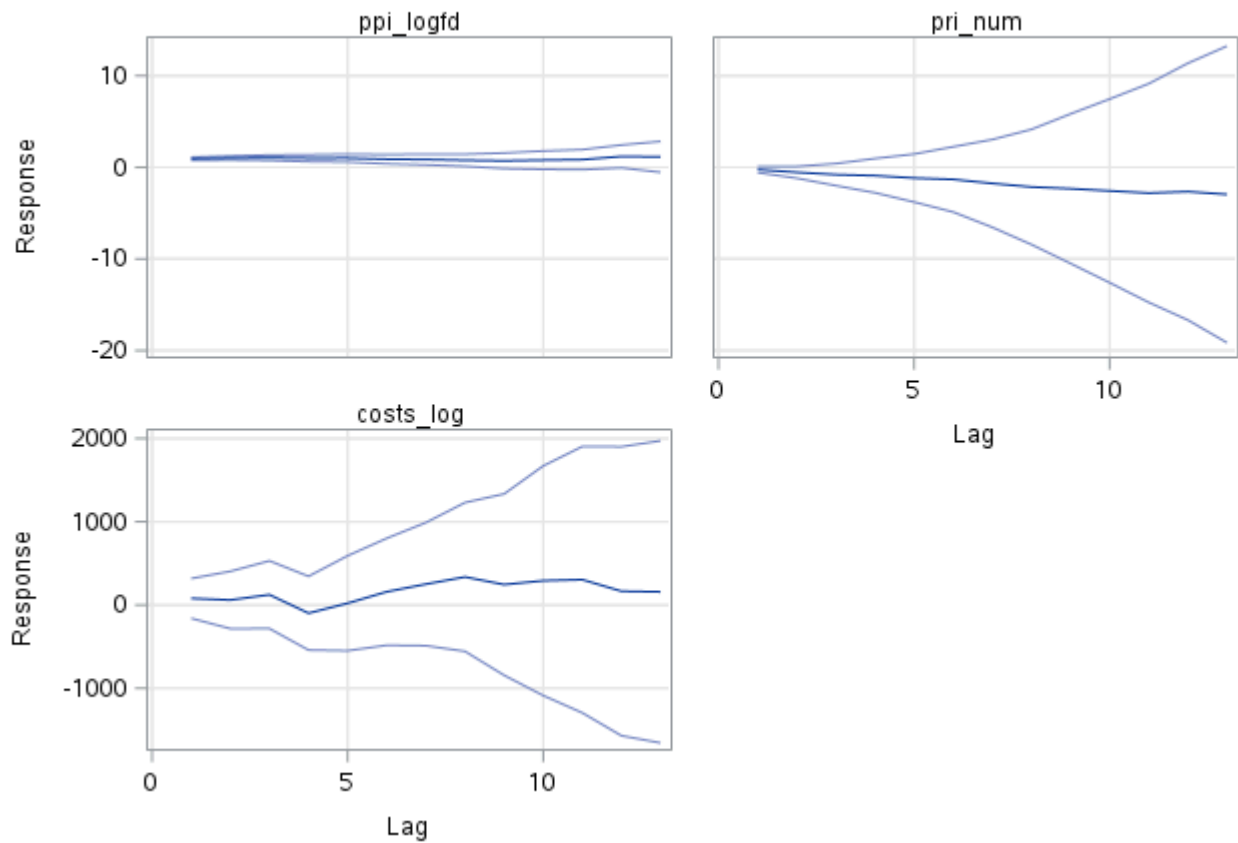


Prognosen						
Variable	Beob	Zeit	Prognose	Standard Fehler	95% Konfidenzgrenzen	
	172	APR2019	0.00410	0.00682	-0.00926	0.01746
	173	MAY2019	0.00249	0.00708	-0.01139	0.01637
	174	JUN2019	0.00350	0.00724	-0.01070	0.01769
	175	JUL2019	0.00342	0.00745	-0.01117	0.01802
costs_log	170	FEB2019	2.20222	4.21588	-6.06075	10.46519
	171	MAR2019	8.00678	4.22661	-0.27722	16.29077
	172	APR2019	2.83271	4.23504	-5.46781	11.13324
	173	MAY2019	1.46706	4.25243	-6.86756	9.80167
	174	JUN2019	5.70013	4.36016	-2.84562	14.24587
	175	JUL2019	3.16985	4.43086	-5.51449	11.85418



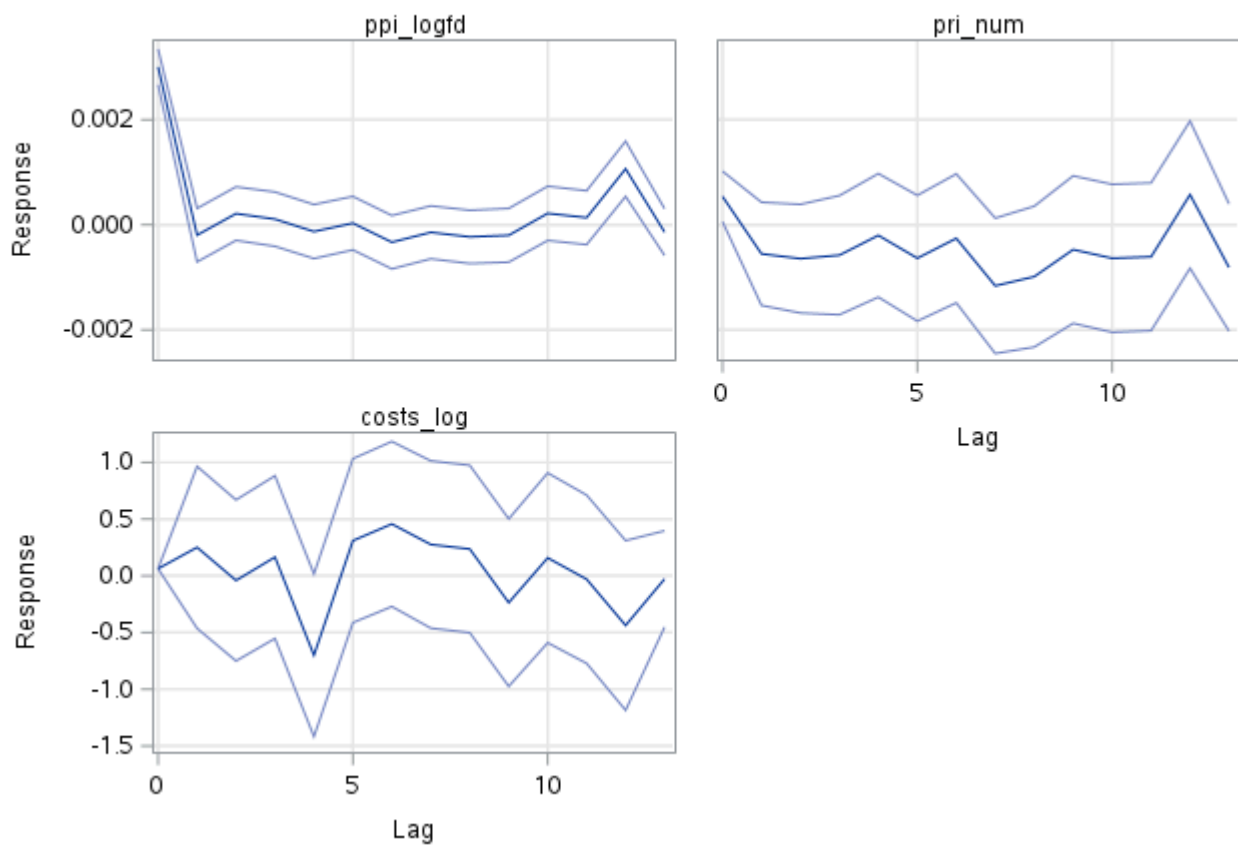
### Akkumulierte Response - Impulse in ppi\_logfd

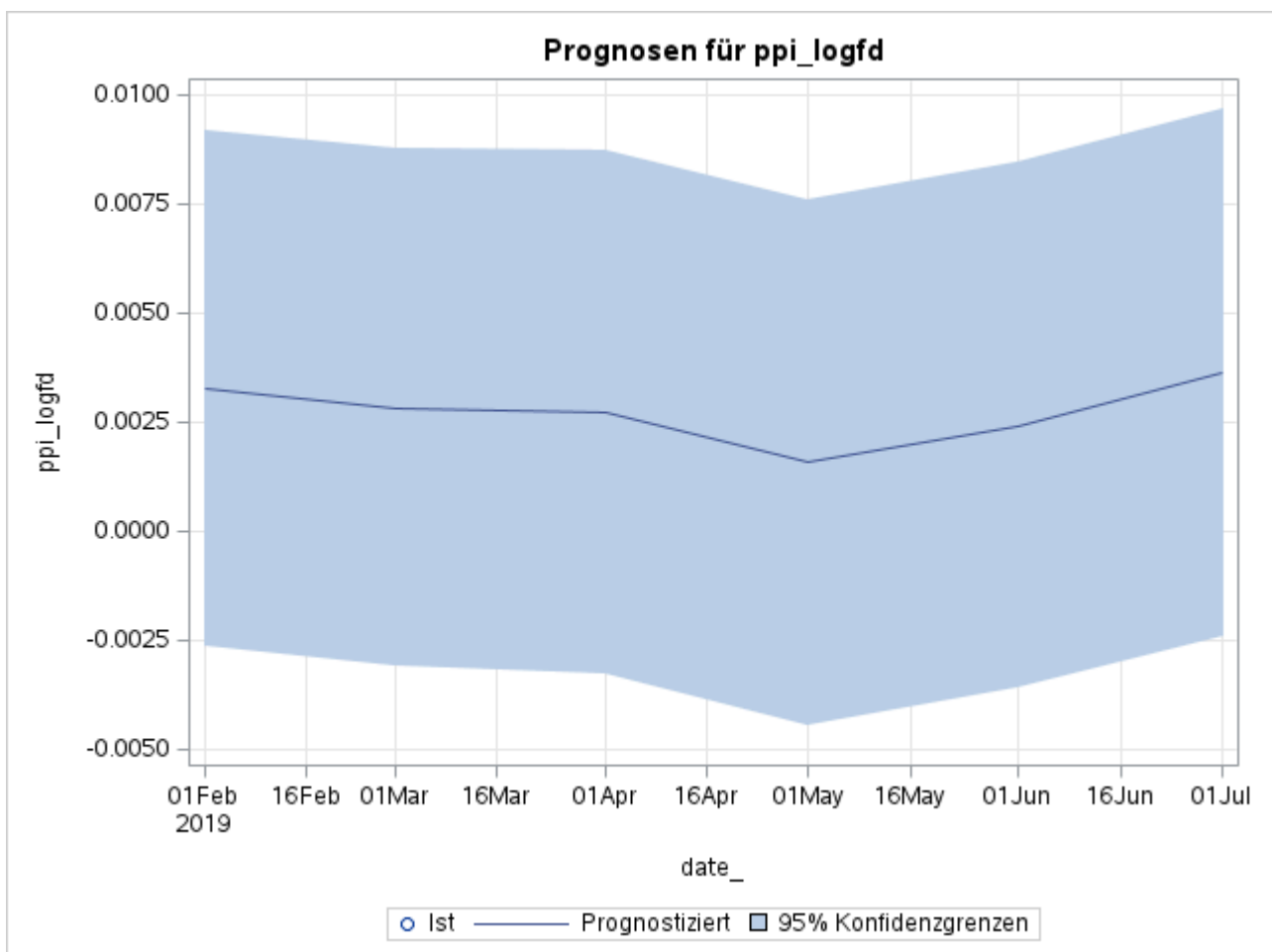
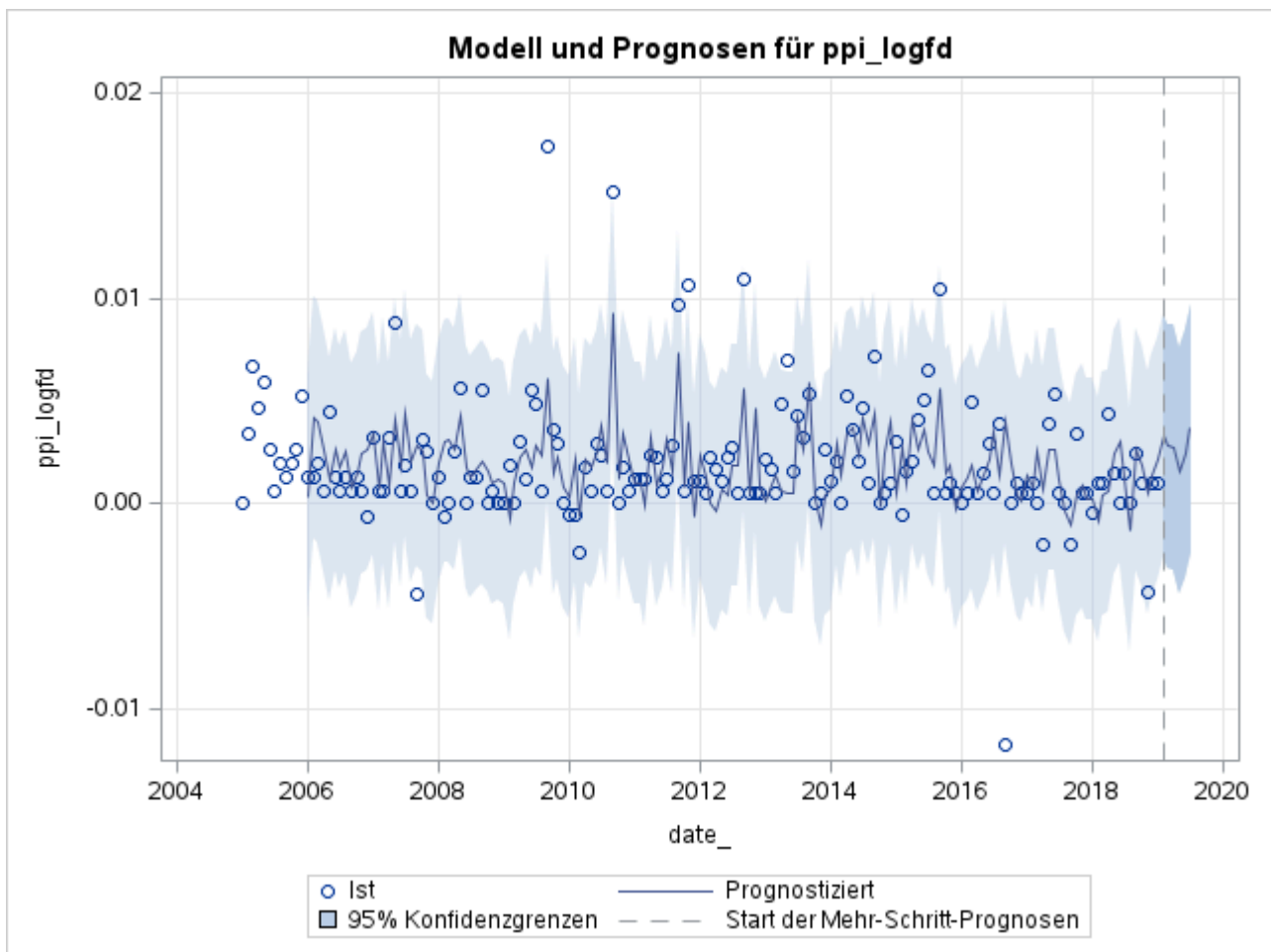
Mit zwei Standardfehlern

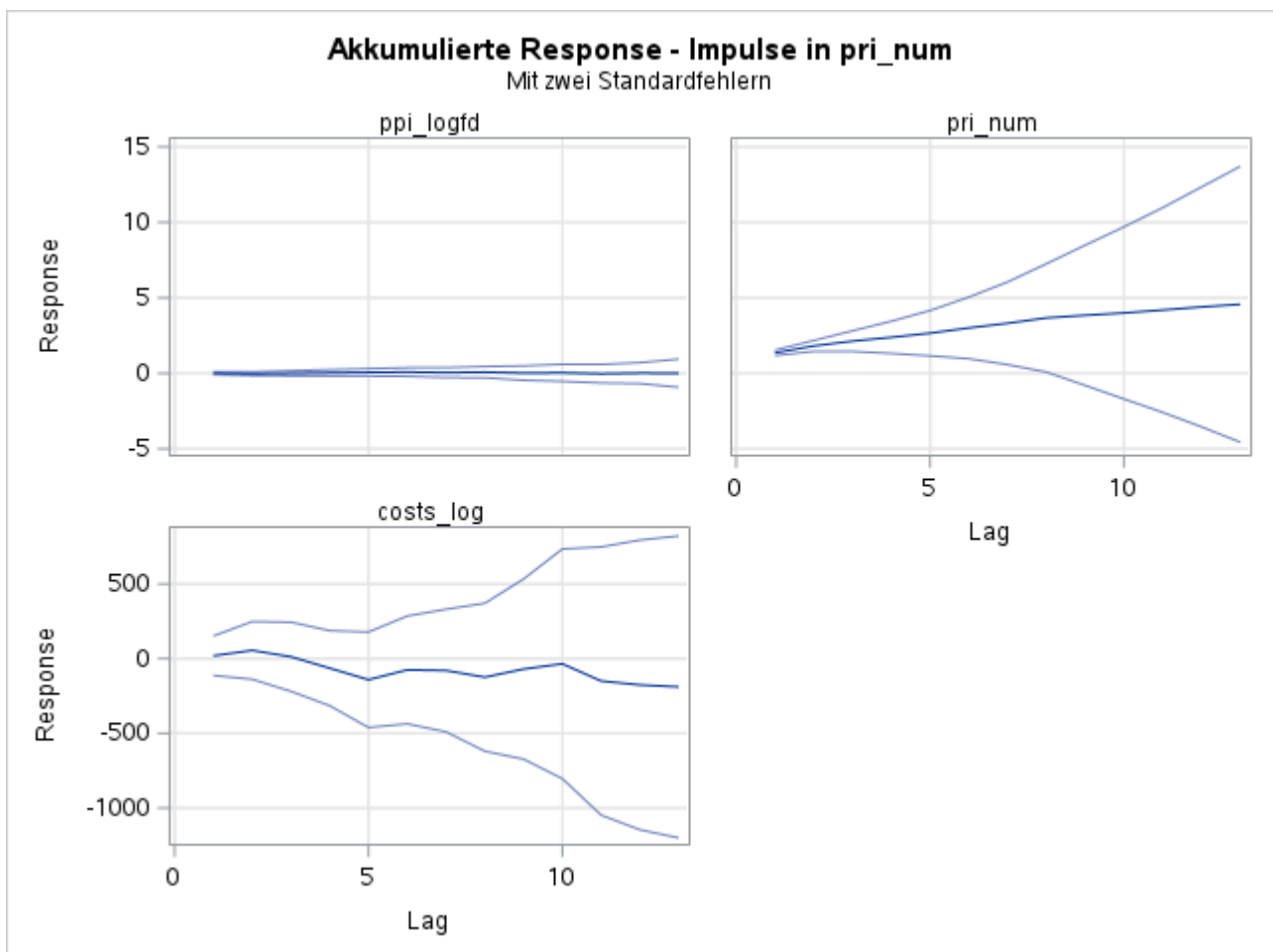
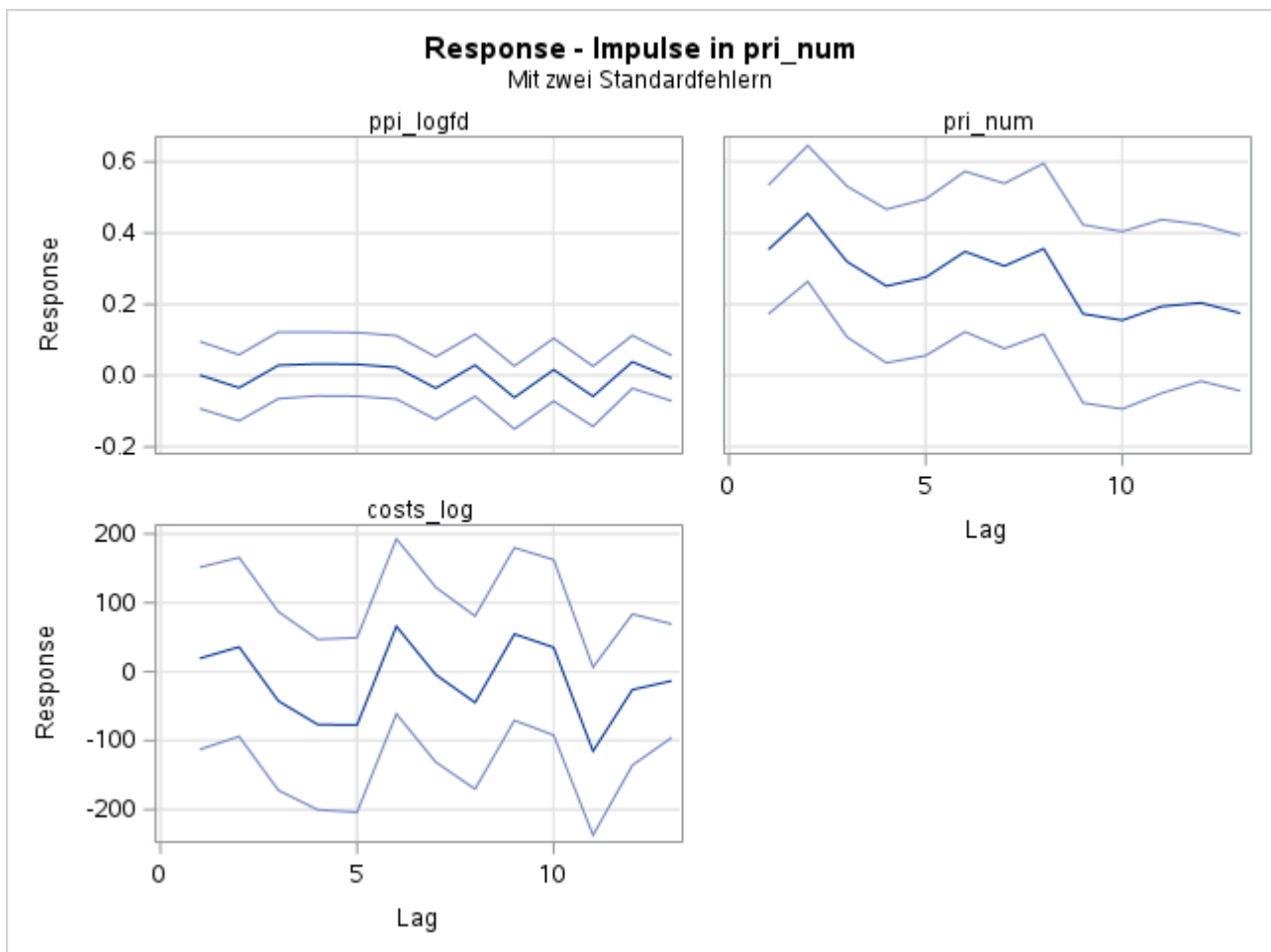


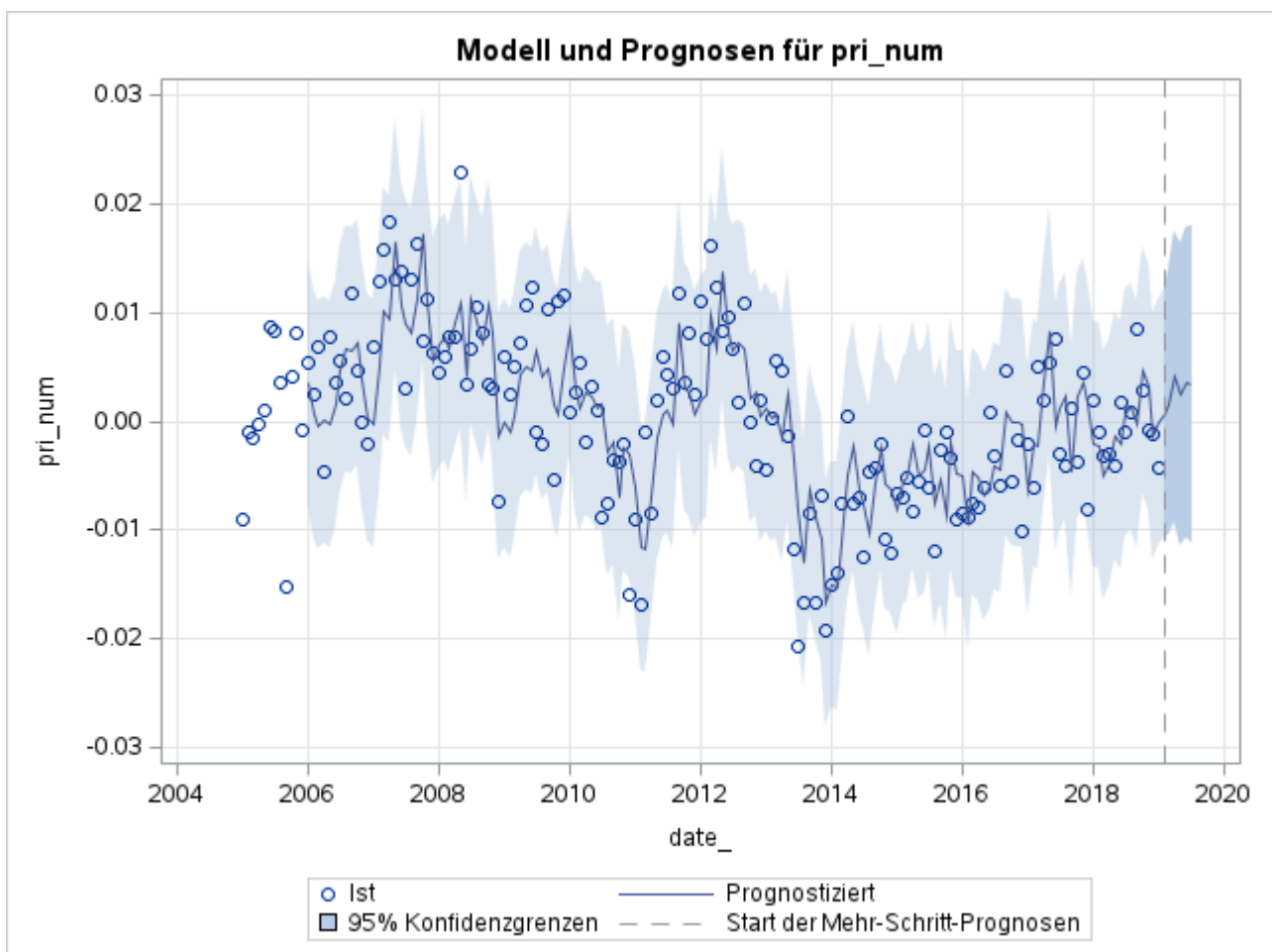
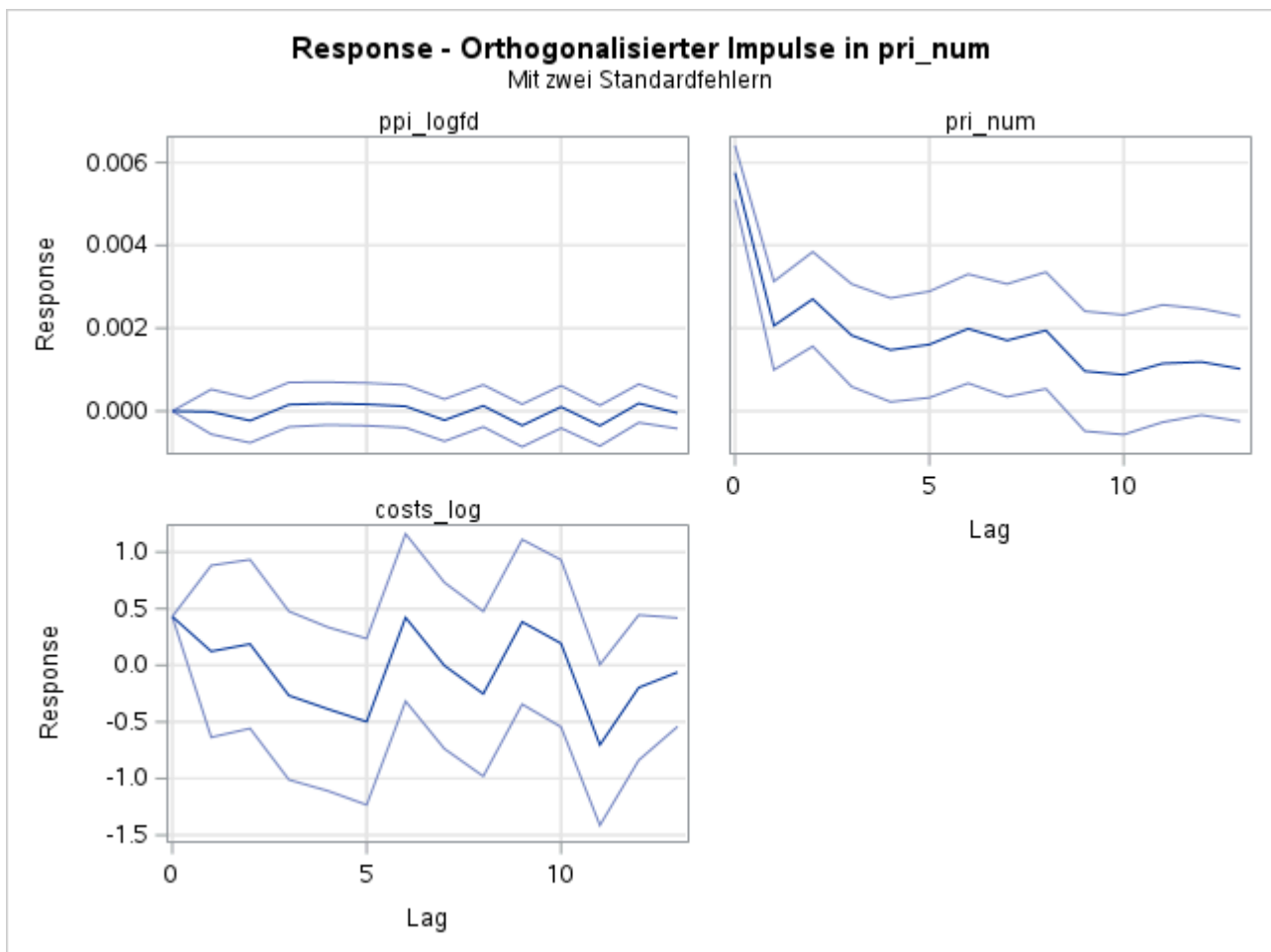
### Response - Orthogonalisierter Impulse in ppi\_logfd

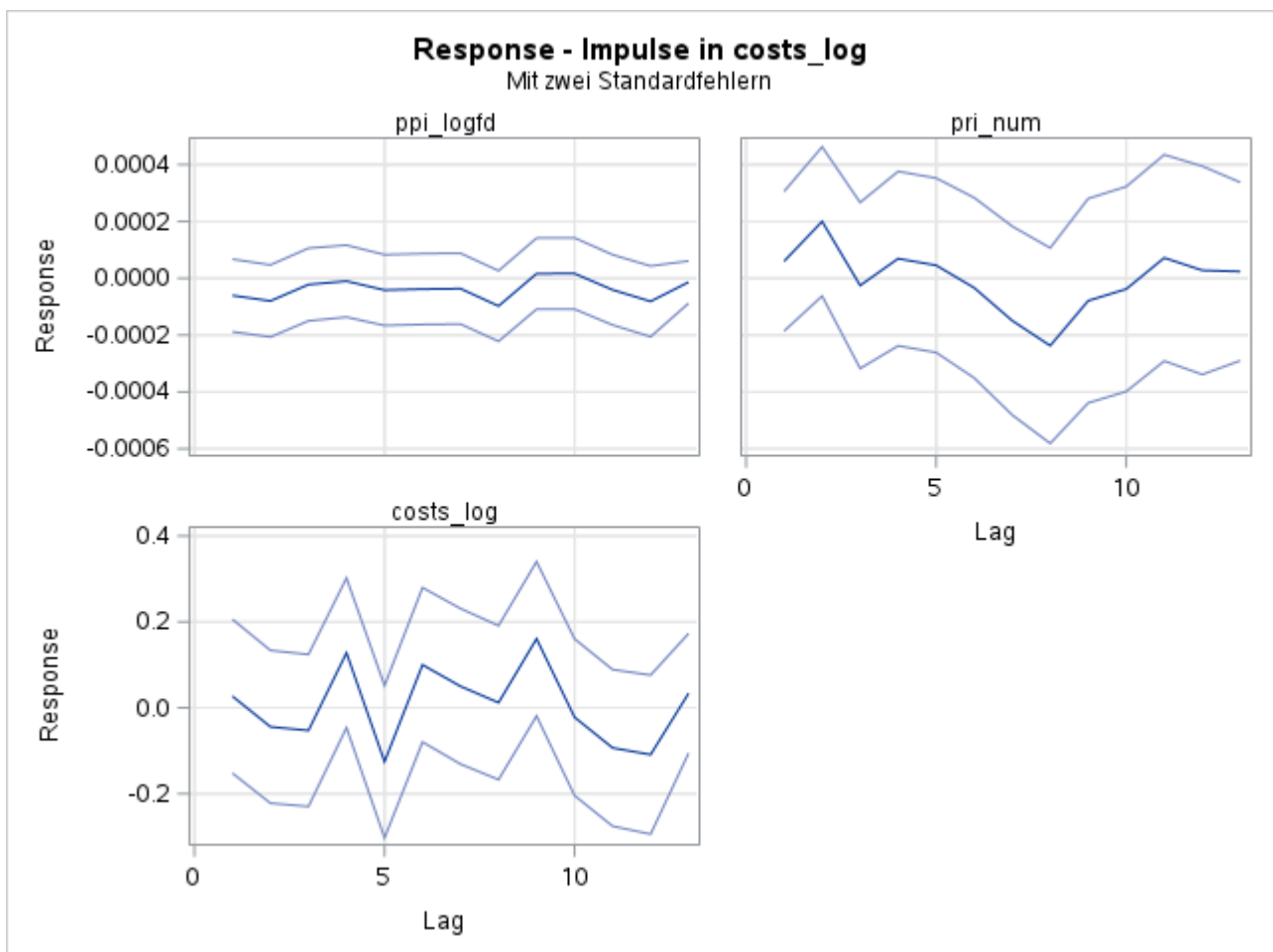
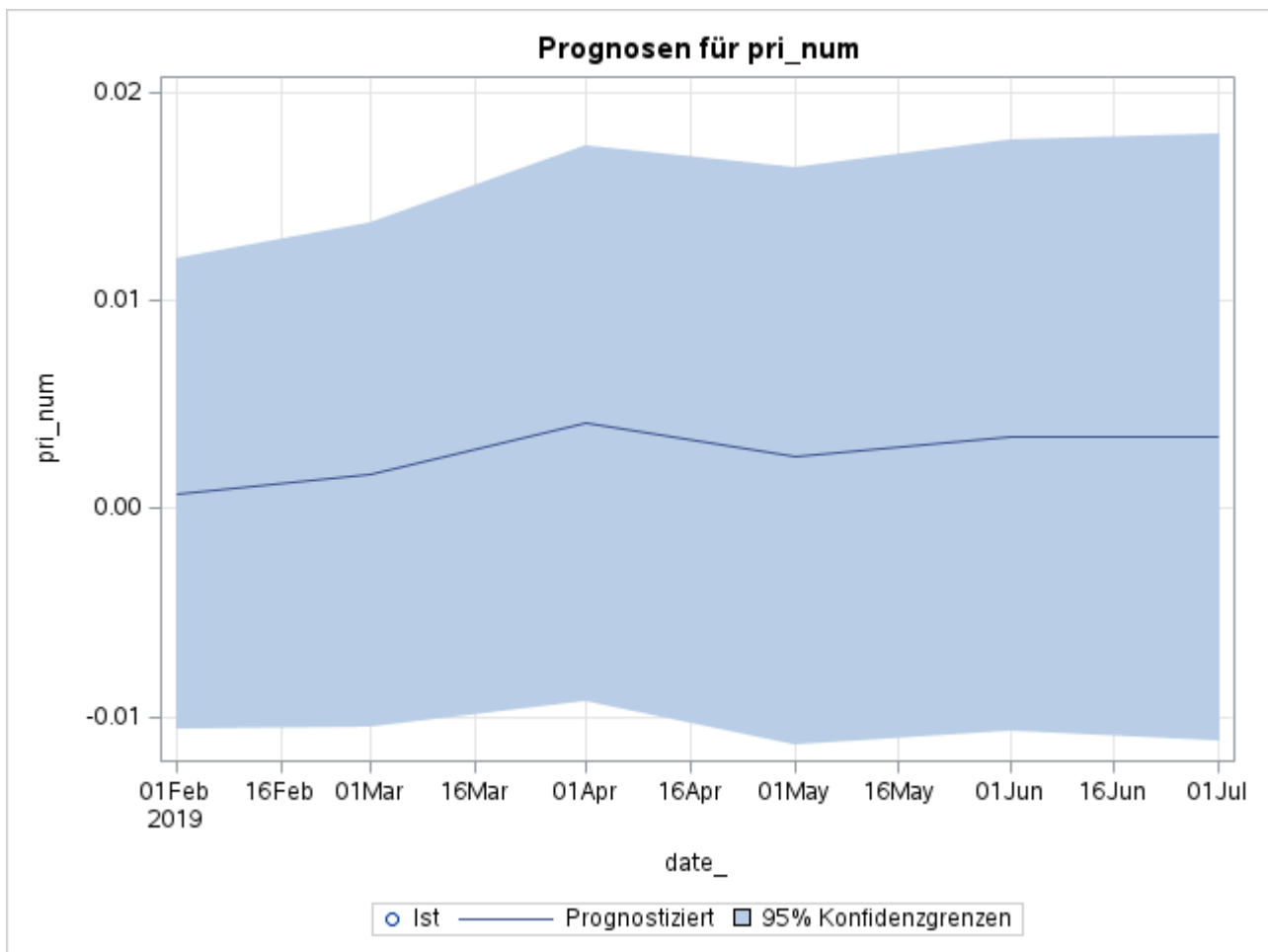
Mit zwei Standardfehlern





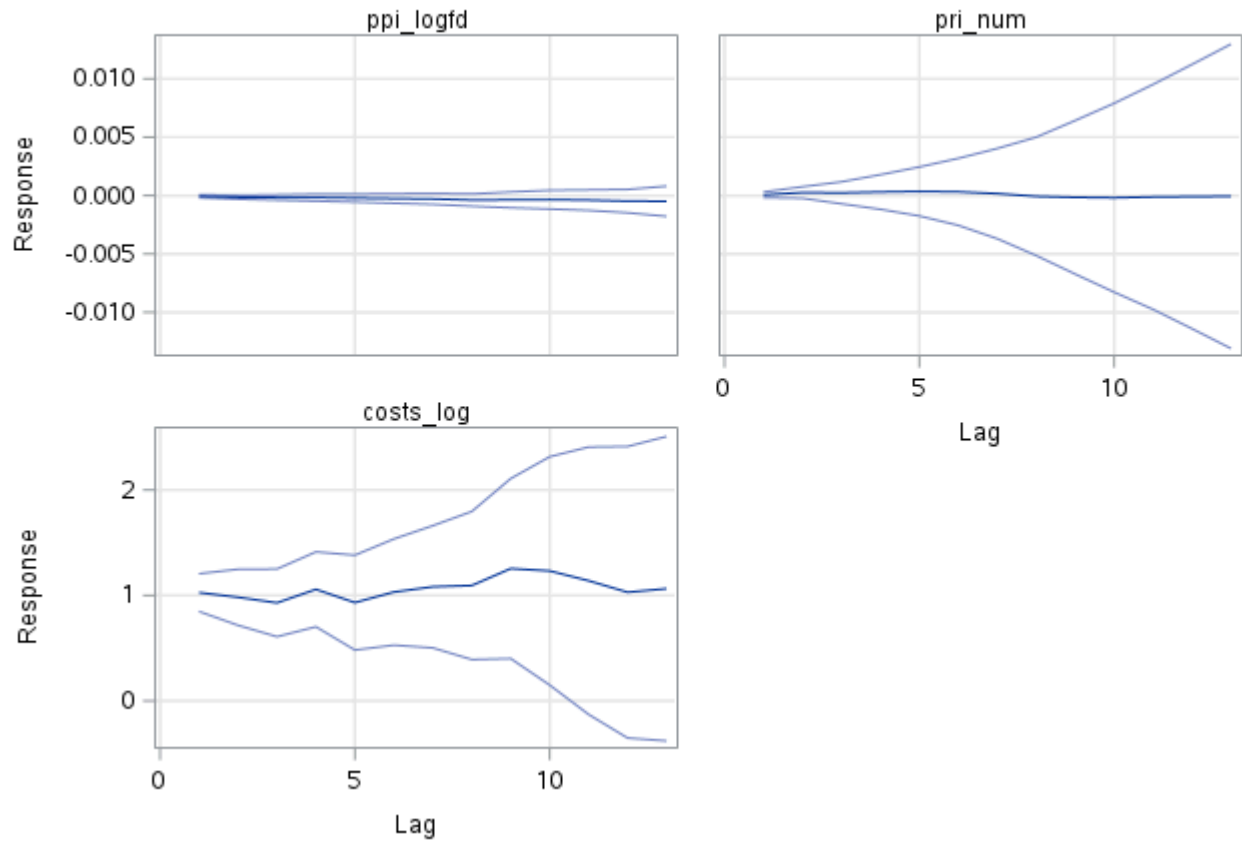






### Akkumulierte Response - Impulse in costs\_log

Mit zwei Standardfehlern



### Response - Orthogonalisierter Impulse in costs\_log

Mit zwei Standardfehlern

