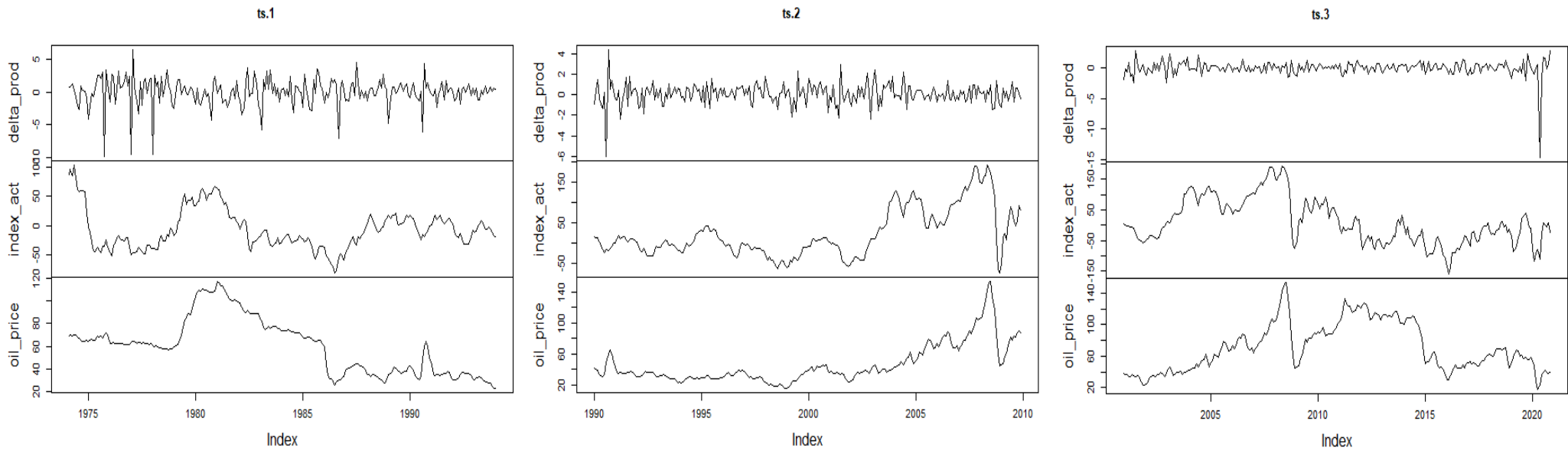


Plot das Séries



## Plot Regressão Individual

### • VAR\_EQ1

Residuals:

	Min	1Q	Median	3Q	Max
	-9.8100	-0.7403	0.2423	1.0657	5.4612

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	0.25208	0.39808	0.633	0.5272
L(delta_prod, 1:2)1	-0.11791	0.06496	-1.815	0.0708 .
L(delta_prod, 1:2)2	-0.08307	0.06500	-1.278	0.2025
L(index_act, 1:2)1	0.01697	0.01582	1.073	0.2844
L(index_act, 1:2)2	-0.02463	0.01556	-1.583	0.1147
L(oil_price, 1:2)1	0.04892	0.04858	1.007	0.3149
L(oil_price, 1:2)2	-0.05297	0.04863	-1.089	0.2772

---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 2.069 on 231 degrees of freedom  
Multiple R-squared: 0.04732, Adjusted R-squared: 0.02257  
F-statistic: 1.912 on 6 and 231 DF, p-value: 0.07972

Residuals:

	Min	1Q	Median	3Q	Max
	-6.2093	-0.4831	0.0266	0.5923	2.9604

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	0.162547	0.177711	0.915	0.3613
L(delta_prod, 1:2)1	-0.181983	0.065347	-2.785	0.0058 **
L(delta_prod, 1:2)2	-0.076857	0.065500	-1.173	0.2418
L(index_act, 1:2)1	0.002788	0.004942	0.564	0.5733
L(index_act, 1:2)2	-0.001468	0.004996	-0.294	0.7692
L(oil_price, 1:2)1	0.016157	0.014684	1.100	0.2723
L(oil_price, 1:2)2	-0.018269	0.014394	-1.269	0.2057

---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.9863 on 231 degrees of freedom  
Multiple R-squared: 0.04833, Adjusted R-squared: 0.02362  
F-statistic: 1.955 on 6 and 231 DF, p-value: 0.07299

Residuals:

	Min	1Q	Median	3Q	Max
	-14.2241	-0.4376	0.0817	0.5447	2.9386

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	-1.800e-01	2.116e-01	-0.851	0.3959
L(delta_prod, 1:2)1	2.754e-02	6.575e-02	0.419	0.6757
L(delta_prod, 1:2)2	-1.344e-01	6.620e-02	-2.030	0.0435 *
L(index_act, 1:2)1	1.446e-03	3.970e-03	0.364	0.7161
L(index_act, 1:2)2	-8.241e-06	3.960e-03	-0.002	0.9983
L(oil_price, 1:2)1	2.997e-02	1.413e-02	2.120	0.0351 *
L(oil_price, 1:2)2	-2.714e-02	1.414e-02	-1.919	0.0562 .

---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.252 on 231 degrees of freedom  
Multiple R-squared: 0.05759, Adjusted R-squared: 0.03312  
F-statistic: 2.353 on 6 and 231 DF, p-value: 0.03171

### • VAR\_EQ2

Residuals:

	Min	1Q	Median	3Q	Max
	-32.044	-5.475	0.121	5.090	27.228

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	-1.39345	1.59948	-0.871	0.385
L(delta_prod, 1:2)1	-0.16399	0.26101	-0.628	0.530
L(delta_prod, 1:2)2	0.15617	0.26116	0.598	0.550
L(index_act, 1:2)1	1.20630	0.06355	18.982	< 2e-16 ***
L(index_act, 1:2)2	-0.26942	0.06251	-4.310	2.42e-05 ***
L(oil_price, 1:2)1	0.13665	0.19519	0.700	0.485
L(oil_price, 1:2)2	-0.12682	0.19540	-0.649	0.517

---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 8.314 on 231 degrees of freedom  
Multiple R-squared: 0.9378, Adjusted R-squared: 0.9362  
F-statistic: 580.4 on 6 and 231 DF, p-value: < 2.2e-16

Residuals:

	Min	1Q	Median	3Q	Max
	-65.847	-6.576	-1.266	6.071	58.809

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	-0.88988	2.26414	-0.393	0.694660
L(delta_prod, 1:2)1	1.07797	0.83256	1.295	0.196693
L(delta_prod, 1:2)2	1.56379	0.83451	1.874	0.062207 .
L(index_act, 1:2)1	1.31149	0.06297	20.829	< 2e-16 ***
L(index_act, 1:2)2	-0.38144	0.06365	-5.993	7.84e-09 ***
L(oil_price, 1:2)1	0.74340	0.18708	3.974	9.46e-05 ***
L(oil_price, 1:2)2	-0.69391	0.18339	-3.784	0.000197 ***

---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 12.57 on 231 degrees of freedom  
Multiple R-squared: 0.9576, Adjusted R-squared: 0.9565  
F-statistic: 870.3 on 6 and 231 DF, p-value: < 2.2e-16

Residuals:

	Min	1Q	Median	3Q	Max
	-71.489	-10.565	-0.286	11.519	57.223

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	3.60961	3.41872	1.056	0.292145
L(delta_prod, 1:2)1	-2.49080	1.06232	-2.345	0.019891 *
L(delta_prod, 1:2)2	0.31362	1.06961	0.293	0.769622
L(index_act, 1:2)1	1.17070	0.06414	18.252	< 2e-16 ***
L(index_act, 1:2)2	-0.22696	0.06399	-3.547	0.000472 ***
L(oil_price, 1:2)1	0.78638	0.22837	3.443	0.000682 ***
L(oil_price, 1:2)2	-0.82975	0.22851	-3.631	0.000348 ***

---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 20.23 on 231 degrees of freedom  
Multiple R-squared: 0.9269, Adjusted R-squared: 0.925  
F-statistic: 488.5 on 6 and 231 DF, p-value: < 2.2e-16

### • VAR\_EQ3

Residuals:

	Min	1Q	Median	3Q	Max
	-14.0069	-1.2009	0.0638	1.0410	13.3781

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	0.602332	0.454734	1.325	0.187
L(delta_prod, 1:2)1	0.080520	0.074205	1.085	0.279
L(delta_prod, 1:2)2	-0.092940	0.074248	-1.252	0.212
L(index_act, 1:2)1	0.003130	0.018068	0.173	0.863
L(index_act, 1:2)2	0.001152	0.017772	0.065	0.948
L(oil_price, 1:2)1	1.547527	0.055493	27.887	<2e-16 ***
L(oil_price, 1:2)2	-0.558402	0.055551	-10.052	<2e-16 ***

---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 2.364 on 231 degrees of freedom  
Multiple R-squared: 0.9909, Adjusted R-squared: 0.9906  
F-statistic: 4174 on 6 and 231 DF, p-value: < 2.2e-16

Residuals:

	Min	1Q	Median	3Q	Max
	-18.232	-2.029	-0.149	1.941	13.144

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	2.57101	0.72488	3.547	0.000472 ***
L(delta_prod, 1:2)1	-0.30701	0.26655	-1.152	0.250602
L(delta_prod, 1:2)2	-0.60507	0.26717	-2.265	0.024460 *
L(index_act, 1:2)1	0.04414	0.02016	2.190	0.029561 *
L(index_act, 1:2)2	-0.02596	0.02038	-1.274	0.203991
L(oil_price, 1:2)1	1.46943	0.05990	24.533	< 2e-16 ***
L(oil_price, 1:2)2	-0.53069	0.05871	-9.038	< 2e-16 ***

---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 4.023 on 231 degrees of freedom  
Multiple R-squared: 0.9758, Adjusted R-squared: 0.9752  
F-statistic: 1552 on 6 and 231 DF, p-value: < 2.2e-16

Residuals:

	Min	1Q	Median	3Q	Max
	-20.1424	-3.1347	0.0712	3.9264	12.1713

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	2.207771	0.887770	2.487	0.0136 *
L(delta_prod, 1:2)1	-0.446291	0.275862	-1.618	0.1071
L(delta_prod, 1:2)2	0.123165	0.277755	0.443	0.6579
L(index_act, 1:2)1	0.013937	0.016656	0.837	0.4036
L(index_act, 1:2)2	-0.009757	0.016616	-0.587	0.5576
L(oil_price, 1:2)1	1.464112	0.059302	24.689	< 2e-16 ***
L(oil_price, 1:2)2	-0.495562	0.059339	-8.351	6.25e-15 ***

---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 5.253 on 231 degrees of freedom  
Multiple R-squared: 0.9711, Adjusted R-squared: 0.9704  
F-statistic: 1295 on 6 and 231 DF, p-value: < 2.2e-16

# Plot VAR

Covariance matrix of residuals:

	delta_prod	index_act	oil_price
delta_prod	4.1921	-0.3317	-0.4748
index_act	-0.3317	63.5335	3.0782
oil_price	-0.4748	3.0782	5.5618

Correlation matrix of residuals:

	delta_prod	index_act	oil_price
delta_prod	1.00000	-0.02032	-0.09832
index_act	-0.02032	1.00000	0.16375
oil_price	-0.09832	0.16375	1.00000

Covariance matrix of residuals:

	delta_prod	index_act	oil_price
delta_prod	0.9364	0.4122	-0.4107
index_act	0.4122	143.2685	13.9858
oil_price	-0.4107	13.9858	16.1193

Correlation matrix of residuals:

	delta_prod	index_act	oil_price
delta_prod	1.00000	0.03559	-0.1057
index_act	0.03559	1.00000	0.2910
oil_price	-0.10571	0.29103	1.0000

Covariance matrix of residuals:

	delta_prod	index_act	oil_price
delta_prod	1.47812	0.07797	-1.184
index_act	0.07797	397.22256	14.475
oil_price	-1.18437	14.47482	28.296

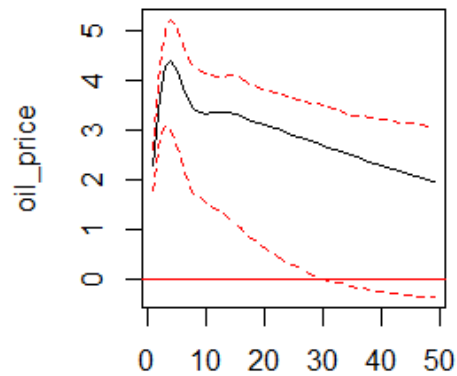
Correlation matrix of residuals:

	delta_prod	index_act	oil_price
delta_prod	1.000000	0.003218	-0.1831
index_act	0.003218	1.000000	0.1365
oil_price	-0.183136	0.136532	1.0000

## Plot Impulso Resposta

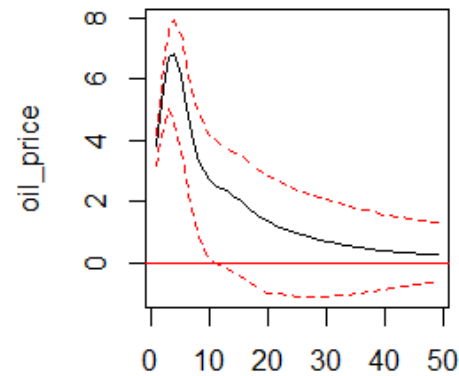
- oil\_price > oil\_price

Orthogonal Impulse Response from oil\_price



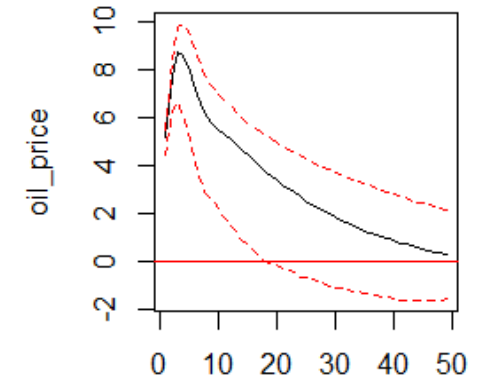
95 % Bootstrap CI, 1000 runs

Orthogonal Impulse Response from oil\_price



95 % Bootstrap CI, 1000 runs

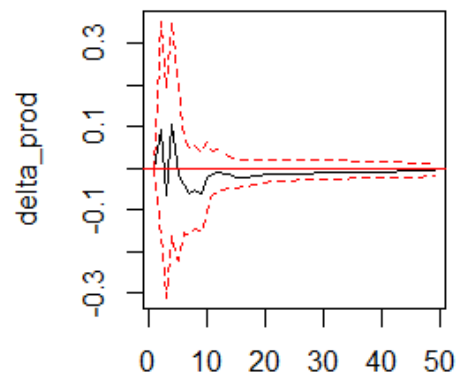
Orthogonal Impulse Response from oil\_price



95 % Bootstrap CI, 1000 runs

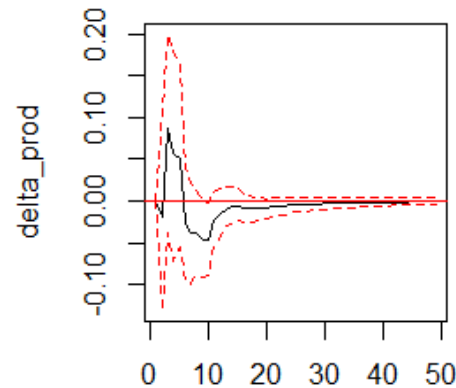
- oil\_price > delta\_prod

Orthogonal Impulse Response from oil\_price



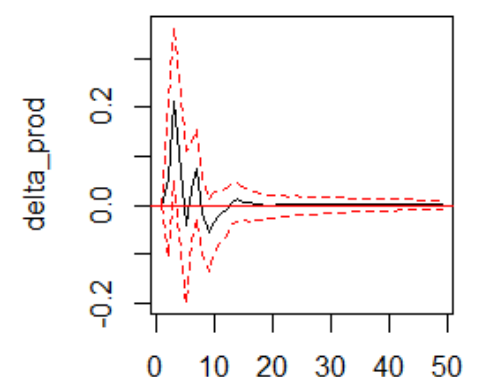
95 % Bootstrap CI, 1000 runs

Orthogonal Impulse Response from oil\_price



95 % Bootstrap CI, 1000 runs

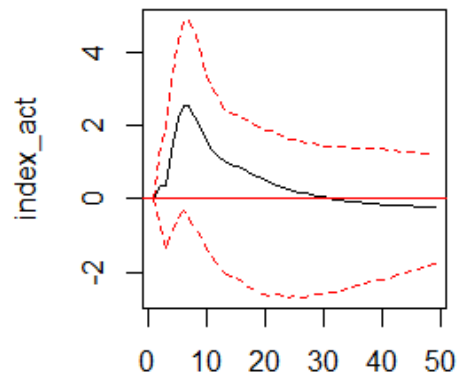
Orthogonal Impulse Response from oil\_price



95 % Bootstrap CI, 1000 runs

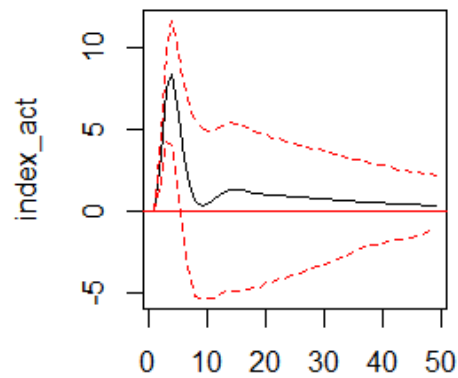
- oil\_price > index\_act

Orthogonal Impulse Response from oil\_price



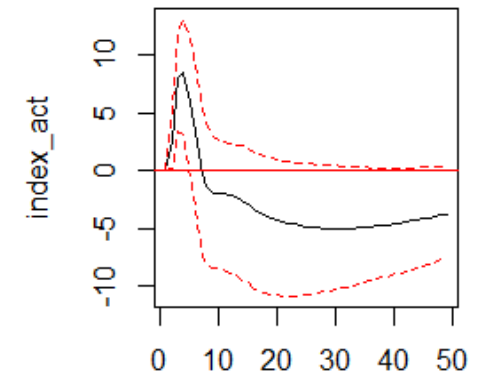
95 % Bootstrap CI, 1000 runs

Orthogonal Impulse Response from oil\_price



95 % Bootstrap CI, 1000 runs

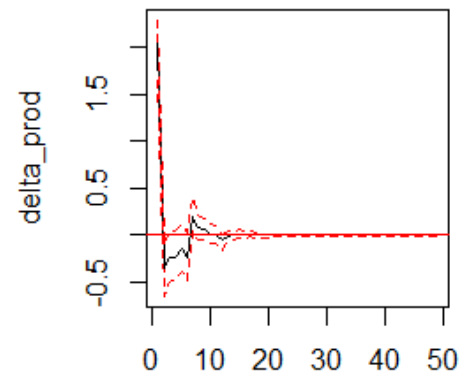
Orthogonal Impulse Response from oil\_price



95 % Bootstrap CI, 1000 runs

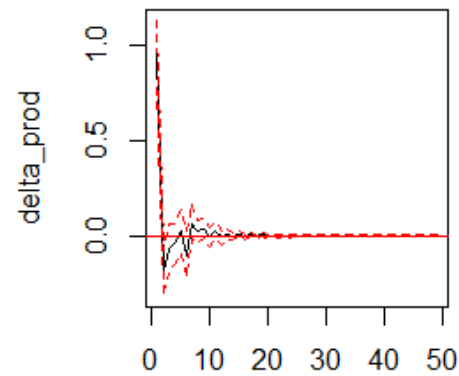
- delta\_prod > delta\_prod

Orthogonal Impulse Response from delta\_prod



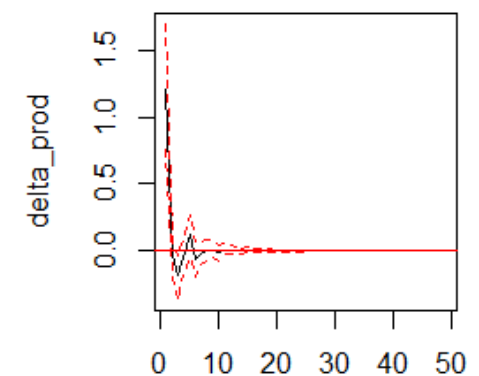
95 % Bootstrap CI, 1000 runs

Orthogonal Impulse Response from delta\_prod



95 % Bootstrap CI, 1000 runs

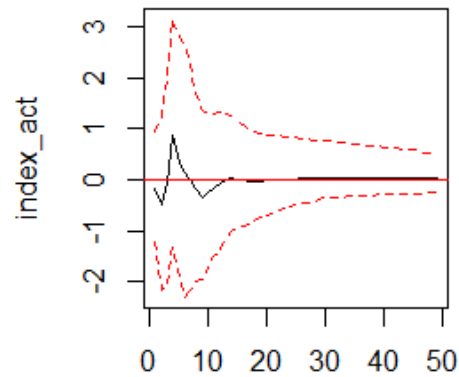
Orthogonal Impulse Response from delta\_prod



95 % Bootstrap CI, 1000 runs

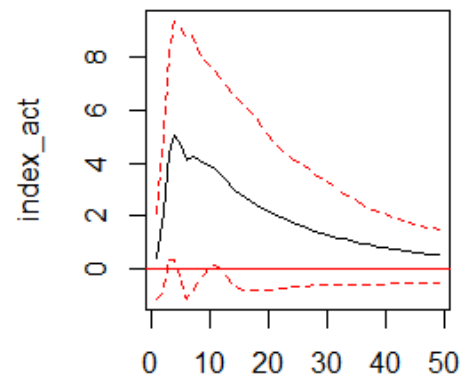
- $\text{delta\_prod} > \text{index\_act}$

Orthogonal Impulse Response from delta\_prod



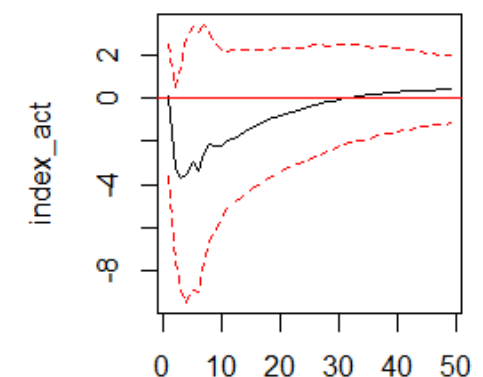
95 % Bootstrap CI, 1000 runs

Orthogonal Impulse Response from delta\_prod



95 % Bootstrap CI, 1000 runs

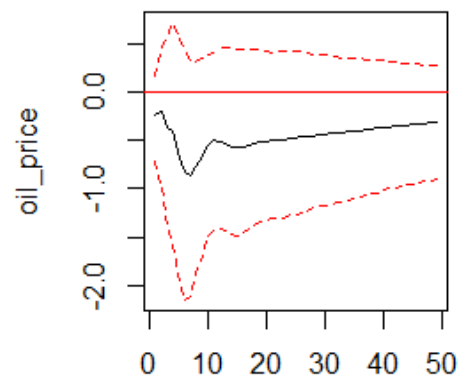
Orthogonal Impulse Response from delta\_prod



95 % Bootstrap CI, 1000 runs

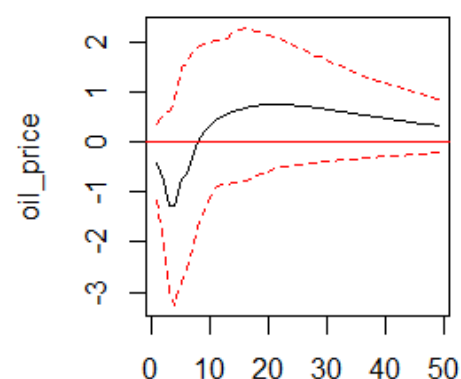
- $\text{delta\_prod} > \text{oil\_price}$

Orthogonal Impulse Response from delta\_prod



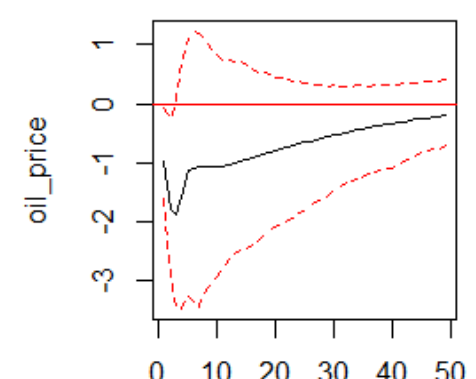
95 % Bootstrap CI, 1000 runs

Orthogonal Impulse Response from delta\_prod



95 % Bootstrap CI, 1000 runs

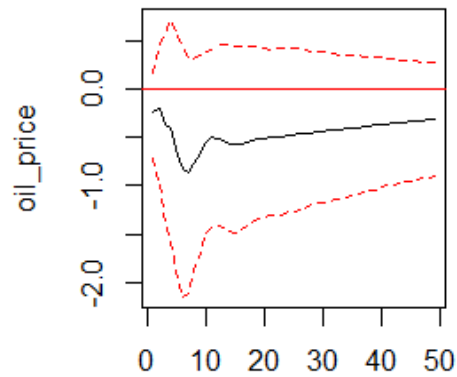
Orthogonal Impulse Response from delta\_prod



95 % Bootstrap CI, 1000 runs

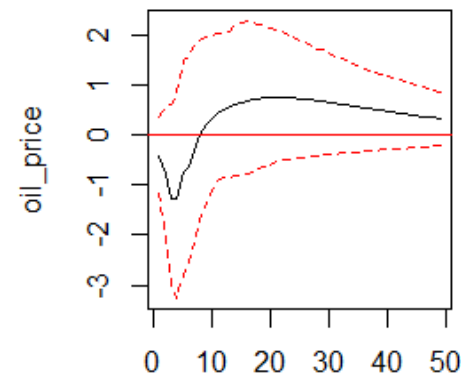
- $\text{index\_act} > \text{index\_act}$

Orthogonal Impulse Response from  $\text{delta\_prod}$



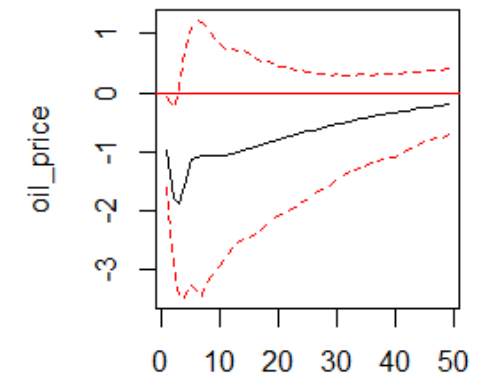
95 % Bootstrap CI, 1000 runs

Orthogonal Impulse Response from  $\text{delta\_prod}$



95 % Bootstrap CI, 1000 runs

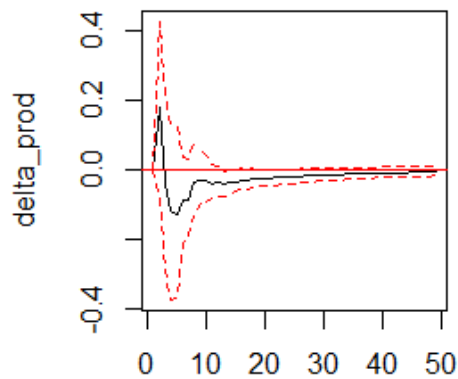
Orthogonal Impulse Response from  $\text{delta\_prod}$



95 % Bootstrap CI, 1000 runs

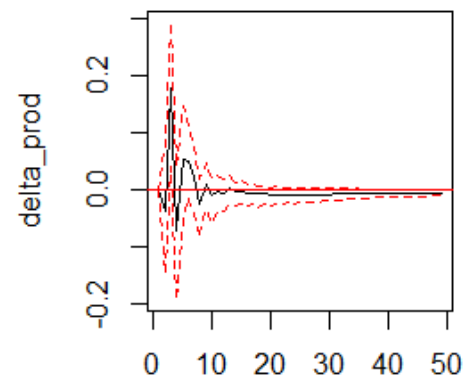
- $\text{index\_act} > \text{delta\_prod}$

Orthogonal Impulse Response from  $\text{index\_act}$



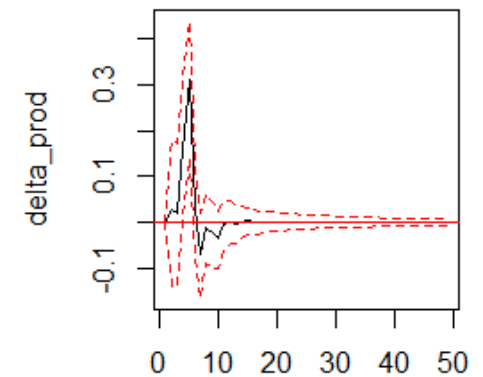
95 % Bootstrap CI, 1000 runs

Orthogonal Impulse Response from  $\text{index\_act}$



95 % Bootstrap CI, 1000 runs

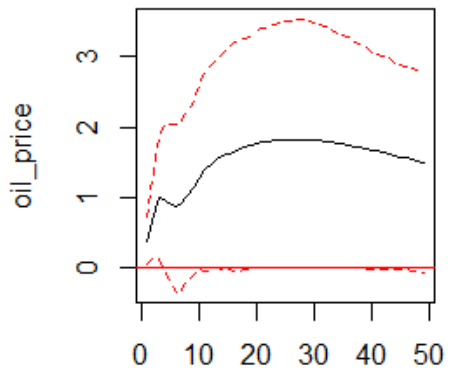
Orthogonal Impulse Response from  $\text{index\_act}$



95 % Bootstrap CI, 1000 runs

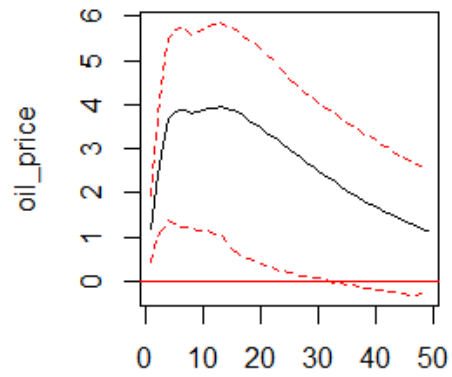
- $\text{index\_act} > \text{oil\_price}$

Orthogonal Impulse Response from index\_act



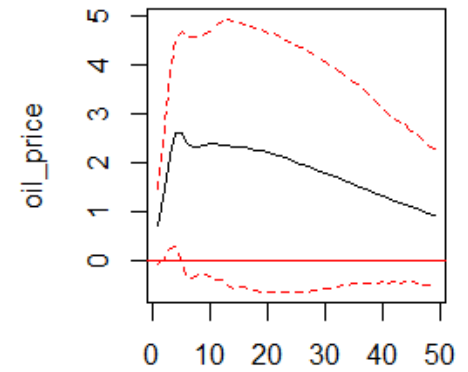
95 % Bootstrap CI, 1000 runs

Orthogonal Impulse Response from index\_act



95 % Bootstrap CI, 1000 runs

Orthogonal Impulse Response from index\_act



95 % Bootstrap CI, 1000 runs



Plot Decomposição da Variância

p1_delta_prod				p2_delta_prod				p3_delta_prod			
delta_prod	index_act	oil_price		delta_prod	index_act	oil_price		delta_prod	index_act	oil_price	
1	1	0	0	1	1	0	0	1	1	0	0
2	0.990833849318368	0.00722786387428407	0.00193828680734823	2	0.998291734490521	0.00136600795050309	0.000342257558975714	2	0.997623929682418	0.000553607339891376	0.00182246297769067
3	0.989562914634149	0.00753906591275036	0.00289801945310034	3	0.958860402505321	0.0332193621099833	0.00792023538469612	3	0.9690859063636	0.000748175856812168	0.0301659177795881
4	0.984328395942753	0.0104124657504854	0.00525913830676116	4	0.951169253794004	0.0377604526728551	0.0110702935331406	4	0.946733156254334	0.0166982331302194	0.0365686106154471
5	0.980859858624304	0.0138786418812114	0.00526149949448461	5	0.946130140809049	0.0404213230428789	0.0134485361480719	5	0.892276840988894	0.0726446348088227	0.0350785242022834
6	0.979120633551157	0.0153174949379386	0.00556187151090498	6	0.943702048540212	0.0422871798971131	0.0140107715626754	6	0.89144019820384	0.0729883664894364	0.0355714353067237
7	0.976906660384612	0.0167565455604445	0.00633679405494378	7	0.942185726057874	0.0425538412913106	0.0152604326508158	7	0.886204089782586	0.0753070555134506	0.0384888547039632
8	0.976075265036595	0.017030988384506	0.00689374657889946	8	0.940410348661021	0.0429635810019177	0.0166260703370613	8	0.886018420901935	0.0753739113655007	0.0386076677325648
9	0.975093327488713	0.0172214500533282	0.00768522245795937	9	0.938365035209908	0.0429463061545293	0.0186886586355633	9	0.884046739428754	0.0755231257615345	0.0404301348097118
10	0.974739764563946	0.0174487766492676	0.00781145878678657	10	0.936439657354935	0.0429313746714434	0.0206289679736217	10	0.882853614176255	0.0761466825147689	0.0409997033089758
11	0.974366637522328	0.0177698736547217	0.00786348882295014	11	0.935967626459629	0.0428896510192746	0.0211427225210966	11	0.882623314131205	0.0761375352960802	0.0412391505727145
12	0.97403965988101	0.0180765682532122	0.00788377186577742	12	0.935731008665476	0.0429008777496511	0.0213681135848728	12	0.882566936181763	0.076132082852702	0.0413009809655353
13	0.973613753979337	0.0184631400851731	0.00792310593548971	13	0.935638262724884	0.0429057495693181	0.0214559877057979	13	0.882539944120128	0.0761370677318654	0.0413229881480063
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15	0.972889638367993	0.0190376939151691	0.00807266771683767	15	0.935558583102572	0.042908593230237	0.0215328236671907	15	0.882448093858287	0.0761325438949941	0.0414193622467194
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34	0.970205125525917	0.0210748203211871555	0.00891065328692735	34	0.934268964678135	0.0436048008767453	0.0221262344451194	34	0.882430457740685	0.0761337852868951	0.0414357569724193
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40	0.969948830833403	0.0210385414063322	0.00901262776026559	40	0.934092654466116	0.0437665392086429	0.0221408063252411	40	0.882429219156005	0.0761337379709937	0.0414370428730006
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42	0.969885692160232	0.0210748203253739	0.00903948751439455	42	0.934049057316855	0.0438075770284843	0.0221433656546612	42	0.882428886652347	0.0761337127330545	0.0414374006145981
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46	0.969782748098645	0.0211321141823256	0.00908513771902947	46	0.933979758686879	0.0438735597640997	0.022146681549021	46	0.88242832530301	0.0761336646669735	0.0414380100300163
47	0.969761000436891	0.0211438854678396	0.00909511409526981	47	0.933965613883961	0.0438871338618815	0.0221472522541573	47	0.88242820431981	0.0761336541250617	0.041438141555128
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1 0.000412985715500109	0.9995870142845	0.000805418279805536	1 0.00126669356814656	0.998733306431853	0.0238104927337608	1 1035348818	0.99998964651182	0.00722174232158085
2 0.00159984099618016	0.997594740724014	0.000805418279805536	2 0.0103778653415808	0.965811641924658	0.080025435262282	2 0.0100218921446044	0.982756365533815	0.0675588208032369
3 0.00105266037726768	0.997875016197568	0.00107232342516381	3 0.0280457463540053	0.891928818383713	0.11279704910343	3 0.0152922340388912	0.938653331280724	0.0705068731165928
4 0.00311378516541634	0.991132330044184	0.00575388479039925	4 0.0402698565773187	0.846933094319251	0.102085574613224	4 0.0169295721844186	0.915511607012345	0.0628028002845464
5 0.00287366750557988	0.98071145047449	0.01641488201993	5 0.045963112461467	0.842105585992862	0.0925680440868599	5 0.0177728590347875	0.91172026784862	0.0595877003251194
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11 0.00209668271094604	0.950935112522933	0.0469682047661214	11 0.0640467055033744	0.86504712569571	0.0628786675974893	11 0.0217740068022601	0.92385160885672	0.054840832312068
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20 0.00177421052529096	0.951047910138899	0.0471778793358097	20 0.0701689422049352	0.871427052001552	0.0545623218996251	20 0.0208520830103379	0.914248568206413	0.102792548127471
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46 0.00172912063023249	0.952146679204264	0.0461242001655029	46 0.0717586182764839	0.874241024107032	0.0540758123212844	46 0.0178455187663053	0.825294802578851	0.1905522940881925
47 0.00173121003934588	0.952099820893269	0.0461689690673852	47 0.0717653108485097	0.874260301490448	0.0540758123212844	47 0.0178193305740735	0.822953171743902	0.19151230529656
48 0.00173330920089341	0.952050318649931	0.0462163721491754	48 0.0717713039179843	0.874277812084612	0.0540758123212844	48 0.0177970152875501	0.820731464271748	0.1925294802578851

p1_oil_price			p2_oil_price			p3_oil_price		
delta_prod	index_act	oil_price	delta_prod	index_act	oil_price	delta_prod	index_act	oil_price
1 0.00966687590155177	0.0261754126102936	0.964157711488155	1 0.0111746076995278	0.0870127597968473	0.901812632503625	1 0.0335387340992037	0.0188025152841854	0.947658750616611
2 0.00472222081560476	0.0349578557119326	0.960319923472463	2 0.0140955773910181	0.133199057360818	0.852705365248164	2 0.0445747131206709	0.0285918700825284	0.926833416796801
3 0.00591269234111853	0.0422056206511715	0.95188168700771	3 0.0216854276614014	0.152385924331379	0.82592864800722	3 0.0431467940142548	0.0409858232300367	0.915867382755709
4 0.00671636510696545	0.0434599780948686	0.949823656798166	4 0.0234492068064728	0.175982275302085	0.800568517891443	4 0.0390103139589428	0.0538773919580412	0.907112294083016
5 0.0109378299685007	0.0435858292064059	0.945476340825093	5 0.0205458849238617	0.20033741908698	0.779116695989158	5 0.0345000473801918	0.0627815551320883	0.90271839748772
6 0.0163796945480308	0.0442326700137739	0.939387635438195	6 0.0187892757761051	0.225355949069487	0.755854775154408	6 0.0323302057198082	0.06816576415484	0.899504030125352
7 0.0210656233206437	0.0461060875813326	0.932828289098024	7 0.0170427388187265	0.251375698201947	0.731581562979326	7 0.0313113898486553	0.0726015808585034	0.896087029292841
8 0.023591917048178	0.0495050736071633	0.926903009344659	8 0.0156637701692167	0.275526099256029	0.708810130574754	8 0.0309068218648384	0.0772321579148096	0.891861020220352
9 0.024552592169499	0.05441111955575	0.921036288274751	9 0.0147261790662993	0.298843753839347	0.686430067094353	9 0.0307745837596508	0.0822189987345821	0.887006417505767
10 0.0244120153822294	0.0604862816289802	0.91510170298879	10 0.0141082938211315	0.321225224992069	0.6646664811868	10 0.0308396946197493	0.0869643624770708	0.88219594290318
11 0.0239596394546118	0.0672767180603399	0.908763642485048	11 0.0138146535069258	0.342131210007238	0.644054136485836	11 0.0309317143741317	0.0913784716033566	0.877689814022512
12 0.0235550578961426	0.0742866541042353	0.902158287999622	12 0.0137113133713644	0.36151602092737	0.624772665701265	12 0.0310335999862004	0.095575205782821	0.873391194230979
13 0.0233449445373162	0.0811704472707047	0.895484608191979	13 0.0137559672940283	0.379563645681359	0.606680387024613	13 0.0311355623605163	0.0995973792145392	0.869267058424945
14 0.0232834346825834	0.087786250978353	0.888930314339063	14 0.0139166653741391	0.396185766612175	0.589897568013686	14 0.0312375439498565	0.103512690092622	0.865249765957522
15 0.0232989114925604	0.0941434984472397	0.8825575900602	15 0.0142002151165368	0.411455473686146	0.574344311197317	15 0.0313310833545887	0.107385357006969	0.861283559638443
16 0.0232927135331792	0.100298828093634	0.876408458373187	16 0.0145770823759722	0.42545552690404	0.559967390719988	16 0.0314274746138143	0.11119970731506	0.857372818071126
17 0.0232343212741359	0.106303220208475	0.870462458517389	17 0.01503744432791	0.438271156981949	0.546691398690141	17 0.0315290277978427	0.114937705560768	0.853533266641389
18 0.0231284233314532	0.112174255512389	0.864697321156158	18 0.0155612847946995	0.449962956108953	0.534475759096348	18 0.0316336990113463	0.118592786281697	0.849773514706957
19 0.0229979726884299	0.11790141999493	0.85910060731664	19 0.0161326377439573	0.4606158165690839	0.523251545665203	19 0.0317390144542873	0.122155361449666	0.846105624096047
20 0.0228594640662696	0.123462351640589	0.853678184293142	20 0.0167258145798774	0.470314106849863	0.51296007857026	20 0.0318442465979525	0.125615787573652	0.842539965828396
21 0.0227246793172293	0.128837479766885	0.848437840915886	21 0.0173268687884499	0.479139966557839	0.503533164653711	21 0.0319474591394935	0.128970384779671	0.839082156080835
22 0.0225952324386209	0.134015350778642	0.843389416782737	22 0.0179221350977404	0.487168398310505	0.494909466591754	22 0.0320476336676307	0.132217677593118	0.835734688739251
23 0.0224698352395917	0.138993363319853	0.838536801440555	23 0.0185033096953508	0.494473823647726	0.487022866656923	23 0.0321443072099975	0.135356592454174	0.832499100335828
24 0.0223465556463008	0.143774611743979	0.83387883260972	24 0.0190641287056139	0.501122342831692	0.479813528462695	24 0.0322371313999827	0.138386384388975	0.829376484211042
25 0.0222249884504623	0.148364492940943	0.829410518608595	25 0.019602466080815	0.507173725222629	0.473223808696557	25 0.0323256922093215	0.141306784650296	0.826367523140382
26 0.0221053276033884	0.152768694010188	0.825125978386424	26 0.0201163097736461	0.512682264933057	0.46720125293297	26 0.0324098048137757	0.144117330903912	0.823472864282313
27 0.0219884585451085	0.156992679243227	0.821018862211665	27 0.0206050190356732	0.517697699803357	0.46169728116097	27 0.0324893512844799	0.146817576266556	0.820693072448965
28 0.0218749475110807	0.16104172755909	0.817083324929829	28 0.0210680304033181	0.522264761876935	0.456667207719747	28 0.0325642528467289	0.14940749784025	0.818028249313022
29 0.0217650586165741	0.164921219087088	0.813313722296339	29 0.0215053559285612	0.526424342995511	0.452070301075928	29 0.0326344868205924	0.151887466550324	0.815478046629083
30 0.0216587687906433	0.168636777472592	0.809704453736765	30 0.0219169512374437	0.530213683790978	0.447869364971579	30 0.0327001007106398	0.154258141114669	0.813041758174691
31 0.0215560273594035	0.172194223019501	0.806249749621095	31 0.0223031913905874	0.533666673381428	0.444030135227985	31 0.0327611698390818	0.156520535329138	0.81071829483178
32 0.0214567730927392	0.175599450958454	0.802943775948807	32 0.0226646043728087	0.536813999394348	0.440521396232844	32 0.0328177965070333	0.15867598821081	0.808506215282157
33 0.0213610139224545	0.178858342716064	0.799780643361481	33 0.0230020032778629	0.539683518507235	0.437314478214902	33 0.0328701081302176	0.160726105420325	0.806403786449458
34 0.0212687604753682	0.181976709134018	0.796754530390614	34 0.0233163159371647	0.542300443915506	0.43438324014733	34 0.0329182495703044	0.162672746413836	0.80440900401586
35 0.02117999974457	0.184960266873263	0.793859733382167	35 0.0236086363355012	0.544687599335308	0.431703764329191	35 0.0329623763464361	0.164518013882417	0.802519609771147
36 0.0210946699230931	0.187814625555494	0.791090704521413	36 0.0238801005740289	0.546865644592351	0.42925425483362	36 0.0330026552705345	0.166264224728688	0.800733120000777
37 0.0210126794860208	0.190545267539769	0.788442052974211	37 0.0241318857140073	0.548853312190607	0.427014802095386	37 0.0330392618412484	0.167913887455992	0.799046850702759
38 0.0209339173765276	0.193157521362899	0.785908561260574	38 0.0243651520961353	0.550667587707056	0.424967260196808	38 0.0330723773044641	0.169469682614093	0.797457940081443
39 0.0208582733262057	0.195656539509554	0.783485187164241	39 0.0245810458162819	0.552323889462217	0.423095064721501	39 0.0331021866887332	0.170934439822287	0.795963373488979
40 0.020785642610548	0.198047284893198	0.781167072496255	40 0.0247806707227486	0.553836221039909	0.421383108237343	40 0.0331288772090259	0.172311113896509	0.794560008894465
41 0.0207159266652761	0.200334527045591	0.778949546289133	41 0.0249650935002947	0.555217309343637	0.419817597156069	41 0.0331526362286959	0.173602763425096	0.793244600346208
42 0.0206490282300039	0.202522845478526	0.77682812629147	42 0.0251353338237022	0.556478722995019	0.418385943181279	42 0.0331736497168642	0.174812530043582	0.792013820239553
43 0.0205848495779805	0.204616635500609	0.77479851492141	43 0.0252923673004111	0.557630982949508	0.417076649750081	43 0.0331921010460456	0.175943618030725	0.790864280923229
44 0.0205232911485767	0.206620113332126	0.772856595519298	44 0.025437120475384	0.558683660178251	0.415879219346365	44 0.0332081699227667	0.176999275108528	0.789792554968705
45 0.0204642529943858	0.208537319898889	0.770998427106726	45 0.0255704725206042	0.559645464937383	0.414784062542013	45 0.033222031452838	0.177982774459483	0.788795194087679
46 0.0204076362935116	0.210372123916945	0.769220239789544	46 0.0256932530137707	0.56052432692957	0.413782420056659	46 0.0332338554233663	0.178897397580478	0.787868746996155
47 0.0203533448094589	0.212128225213136	0.767518429977406	47 0.0258062430671248	0.561327468534316	0.412866288398559	47 0.0332438057040076	0.1797446418229843	0.787009776066149
48 0.0203012853531475	0.213809159009261	0.765889555637592	48 0.0259101751201597	0.562061470362913	0.412028354516927	48 0.0332520397487818	0.180533087625489	0.786214872625729