Inspection of new elasticities (with standard errors, max 3 lags, kick out ns. coefs, use TS properties of controls)

Simulation scheme

- 1000 draws from variance-covariance matrix of parameter estimates
- one-period shock (which is mathematically equivalent to shocks in *any* other period, and hence also the mean of those); this has been empirically verified

Definition of elasticities:

- "dust settling period": sum of difference of log-level sales on a dataset with shocked mmix instruments, and baseline log-level sales
- "long-term elasticity: difference of log-level sales on a dataset with shocked mmix instruments, and baseline log-level sales in one period (e.g., 12 months after shock)

Measures:

1. elast1: short-term elasticities (difference of log level sales w/ shocked mmix, and baseline log level sales)
2. elast6: sum of (1) over 6 months
3. elast12: sum of (1) over 12 months
4. elast12lt: difference in log-level sales 12 months after shock

Variables:

a. Price (ln rwpspr)
b. Distribution (ln wpswdst)
c. Line length (ln llen)

Descriptive statistics

Overview includes weighted mean elasticities, and an assessment about significance (percentage positive/negative & significant, percentage not significant).

varname	variable	N	mean	median	weightedmean	min	max	perc_positive	perc_negative	perc_ns
lnrwpspr	elast1	100	-0.215	-0.143	-0.203	-2.143	2.832	0.09	0.30	0.61
lnrwpspr	elast12	100	-0.587	-0.440	-0.379	-15.644	13.246	0.08	0.22	0.70
lnrwpspr	elast6	100	-0.397	-0.424	-0.341	-8.948	8.896	0.09	0.23	0.68
lnrwpspr	elastlt12	100	-0.031	0.000	0.000	-0.983	0.612	0.00	0.07	0.93
lnwpswdst	elast1	100	0.451	0.389	0.408	-0.072	1.689	0.82	0.00	0.18
lnwpswdst	elast12	100	0.934	0.719	0.683	-1.236	7.884	0.64	0.01	0.35
lnwpswdst	elast6	100	0.764	0.624	0.635	-0.997	4.845	0.69	0.01	0.30
lnwpswdst	elastlt12	100	0.021	0.001	0.000	-0.122	0.402	0.07	0.01	0.92
lnllen	elast1	100	0.447	0.389	0.410	-0.260	1.527	0.77	0.00	0.23
lnllen	elast12	100	1.322	0.815	0.888	-2.632	14.448	0.70	0.01	0.29
lnllen	elast6	100	1.031	0.751	0.801	-1.204	8.573	0.73	0.01	0.26
lnllen	elastlt12	100	0.037	0.001	0.000	-0.240	0.866	0.13	0.01	0.86

Descriptive stats by model type

Models in levels

varname	variable	N	mean	median	weightedmean	min	max	perc_positive	perc_negative	perc_ns
lnrwpspr	elast1	55	-0.133	-0.125	-0.177	-2.143	2.832	0.109	0.273	0.618
lnrwpspr	elast12	55	-0.265	-0.458	-0.451	-15.644	13.246	0.055	0.236	0.709
lnrwpspr	elast6	55	-0.308	-0.448	-0.436	-8.948	8.896	0.055	0.236	0.709
lnrwpspr	elastlt12	55	0.008	0.000	0.000	-0.890	0.612	0.000	0.018	0.982
lnwpswdst	elast1	55	0.445	0.389	0.386	-0.048	1.689	0.782	0.000	0.218
lnwpswdst	elast12	55	1.147	0.818	0.707	-1.236	7.884	0.655	0.018	0.327
lnwpswdst	elast6	55	0.935	0.696	0.685	-0.997	4.845	0.673	0.018	0.309
lnwpswdst	elastlt12	55	0.024	0.001	0.000	-0.122	0.402	0.073	0.018	0.909
lnllen	elast1	55	0.419	0.360	0.379	-0.067	1.527	0.764	0.000	0.236
lnllen	elast12	55	1.815	0.977	0.945	0.008	14.448	0.764	0.000	0.236
lnllen	elast6	55	1.329	0.926	0.868	0.007	8.573	0.782	0.000	0.218
lnllen	elastlt12	55	0.064	0.002	0.000	-0.021	0.866	0.145	0.000	0.855

Models in differences

varname	variable	N	mean	median	weightedmean	min	max	perc_positive	perc_negative	perc_ns
lnrwpspr	elast1	19	-0.149	0.033	-0.081	-1.745	0.702	0.000	0.211	0.789
lnrwpspr	elast12	19	-2.374	-1.447	-1.492	-11.694	1.742	0.000	0.211	0.789
lnrwpspr	elast6	19	-1.120	-0.492	-0.730	-5.789	0.858	0.000	0.158	0.842
lnrwpspr	elastlt12	19	-0.208	-0.133	-0.124	-0.983	0.147	0.000	0.316	0.684
lnwpswdst	elast1	19	0.398	0.373	0.379	-0.072	1.129	0.842	0.000	0.158
lnwpswdst	elast12	19	0.751	0.904	0.804	-0.829	2.331	0.263	0.000	0.737
lnwpswdst	elast6	19	0.528	0.622	0.559	-0.380	1.420	0.474	0.000	0.526
lnwpswdst	elastlt12	19	0.036	0.033	0.040	-0.074	0.158	0.158	0.000	0.842
lnllen	elast1	19	0.418	0.275	0.417	-0.260	1.427	0.632	0.000	0.368
lnllen	elast12	19	0.461	0.473	0.510	-2.632	2.936	0.263	0.053	0.684
lnllen	elast6	19	0.445	0.412	0.463	-1.204	2.081	0.316	0.053	0.632
lnllen	elastlt12	19	0.003	-0.013	0.009	-0.240	0.144	0.105	0.053	0.842

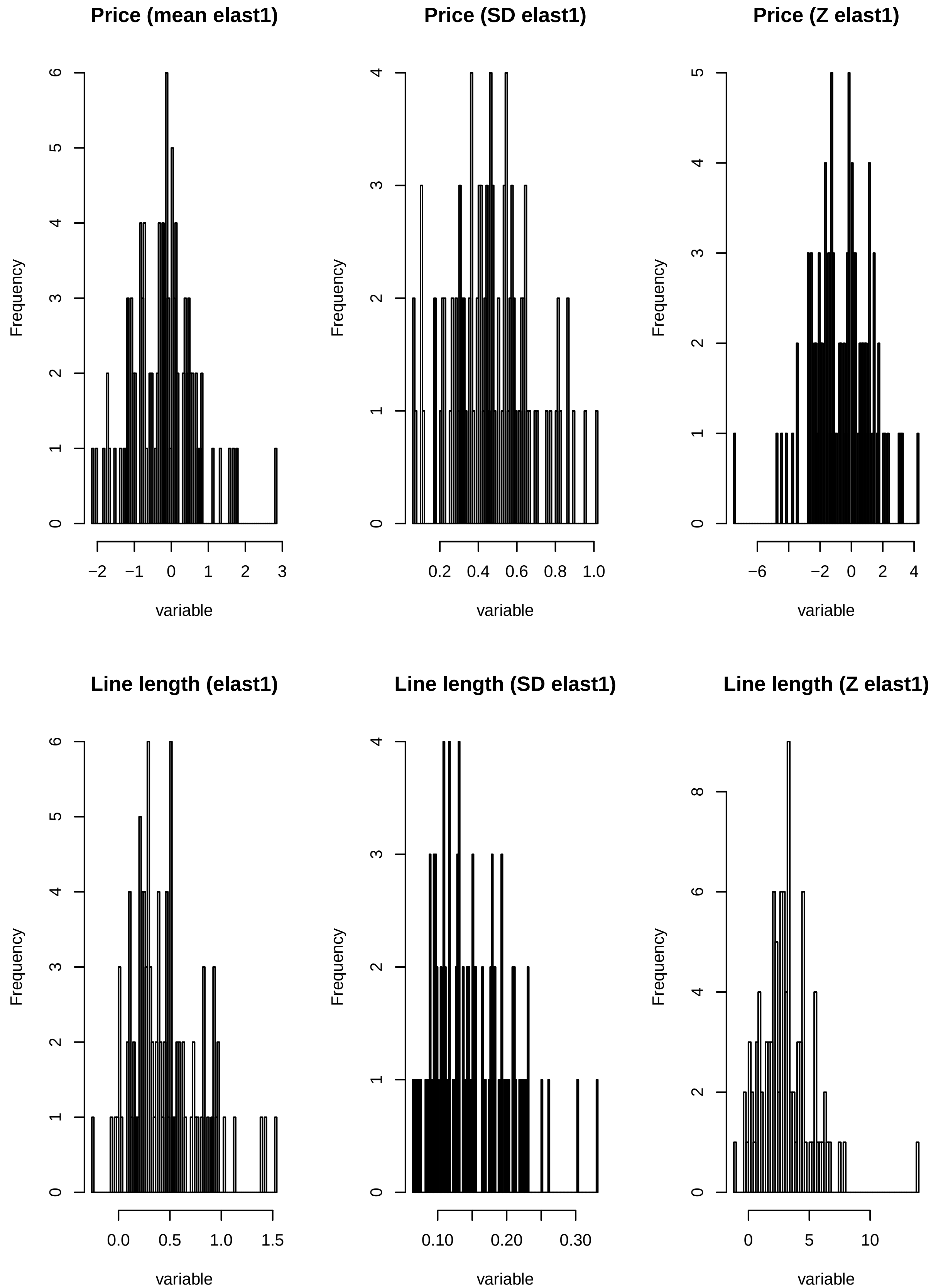
Models in EC

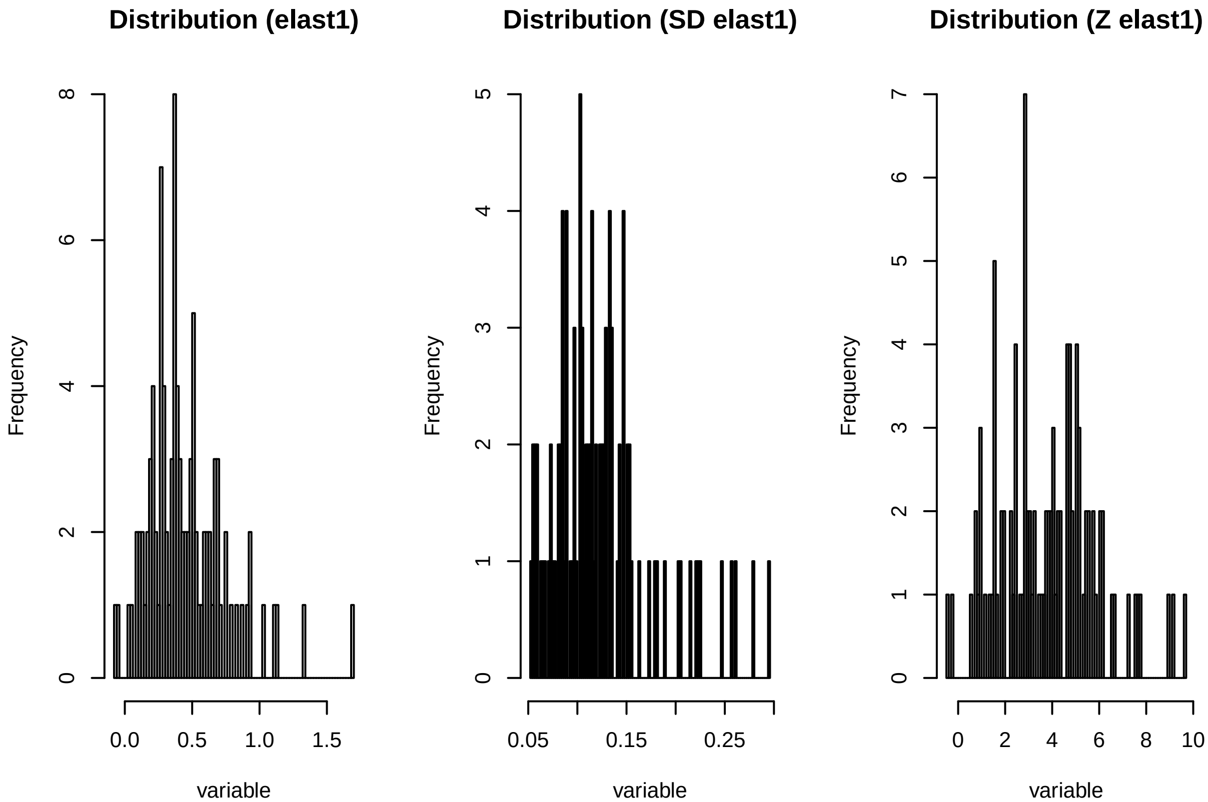
varname	variable	N	mean	median	weightedmean	min	max	perc_positive	perc_negative	perc_ns
lnrwpspr	elast1	26	-0.438	-0.337	-0.351	-2.005	1.572	0.115	0.423	0.462
lnrwpspr	elast12	26	0.035	-0.076	-0.106	-3.263	3.779	0.192	0.192	0.615
lnrwpspr	elast6	26	-0.058	-0.115	-0.110	-2.626	2.054	0.231	0.269	0.500
lnrwpspr	elastlt12	26	0.014	0.000	0.000	-0.046	0.251	0.000	0.000	1.000
lnwpswdst	elast1	26	0.503	0.491	0.469	0.081	1.328	0.885	0.000	0.115
lnwpswdst	elast12	26	0.617	0.590	0.637	-0.880	1.762	0.885	0.000	0.115
lnwpswdst	elast6	26	0.573	0.580	0.595	-0.744	1.602	0.885	0.000	0.115
lnwpswdst	elastlt12	26	0.004	0.000	0.000	-0.007	0.034	0.000	0.000	1.000
lnllen	elast1	26	0.527	0.500	0.480	0.104	1.131	0.885	0.000	0.115
lnllen	elast12	26	0.911	0.799	0.875	0.260	1.710	0.885	0.000	0.115
lnllen	elast6	26	0.828	0.754	0.815	0.317	1.492	0.923	0.000	0.077
lnllen	elastlt12	26	0.005	0.001	0.000	-0.008	0.024	0.115	0.000	0.885

Plots

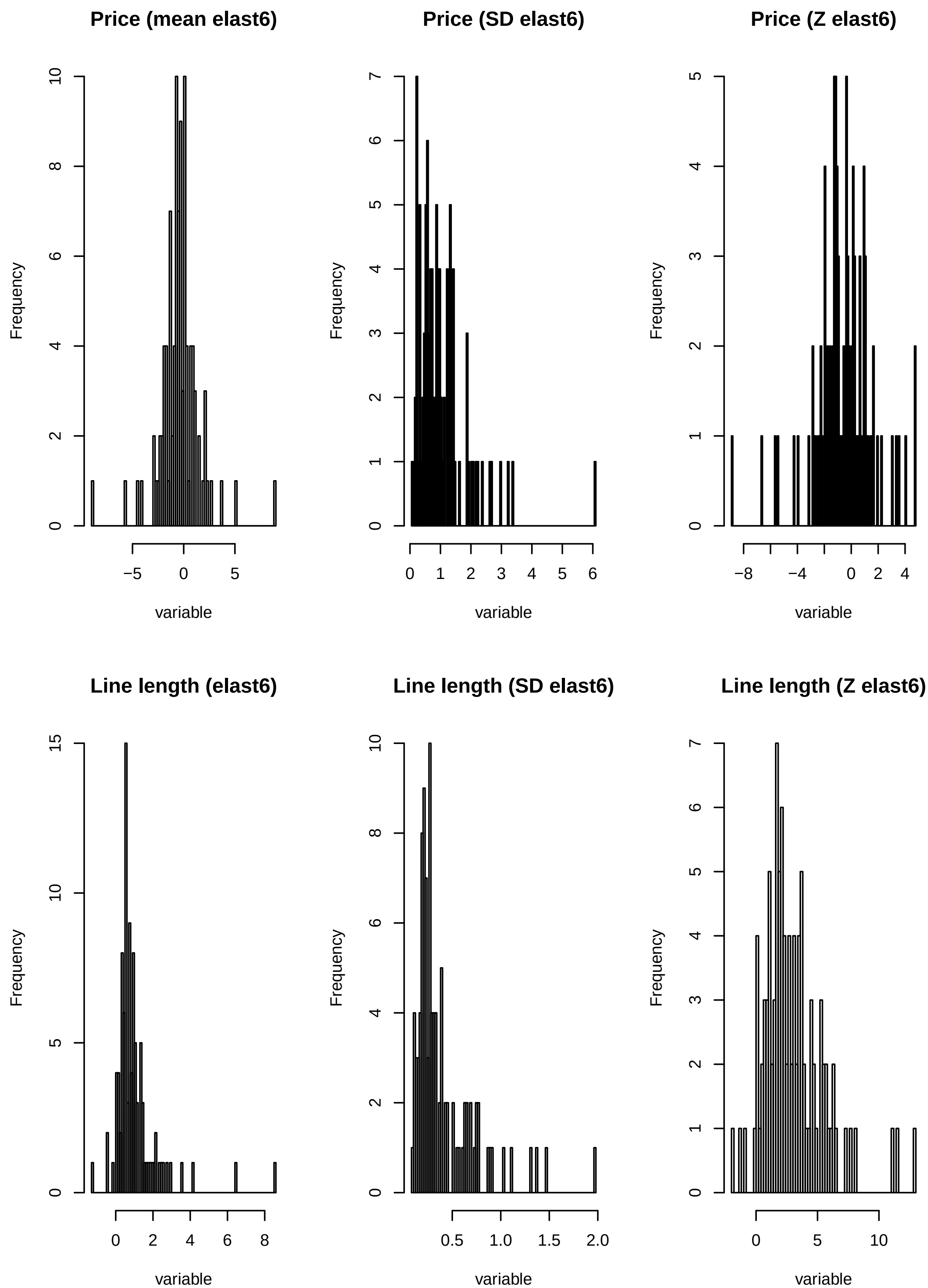
- Distribution of mean parameter
- Distribution of standard errors
- Distribution of z values

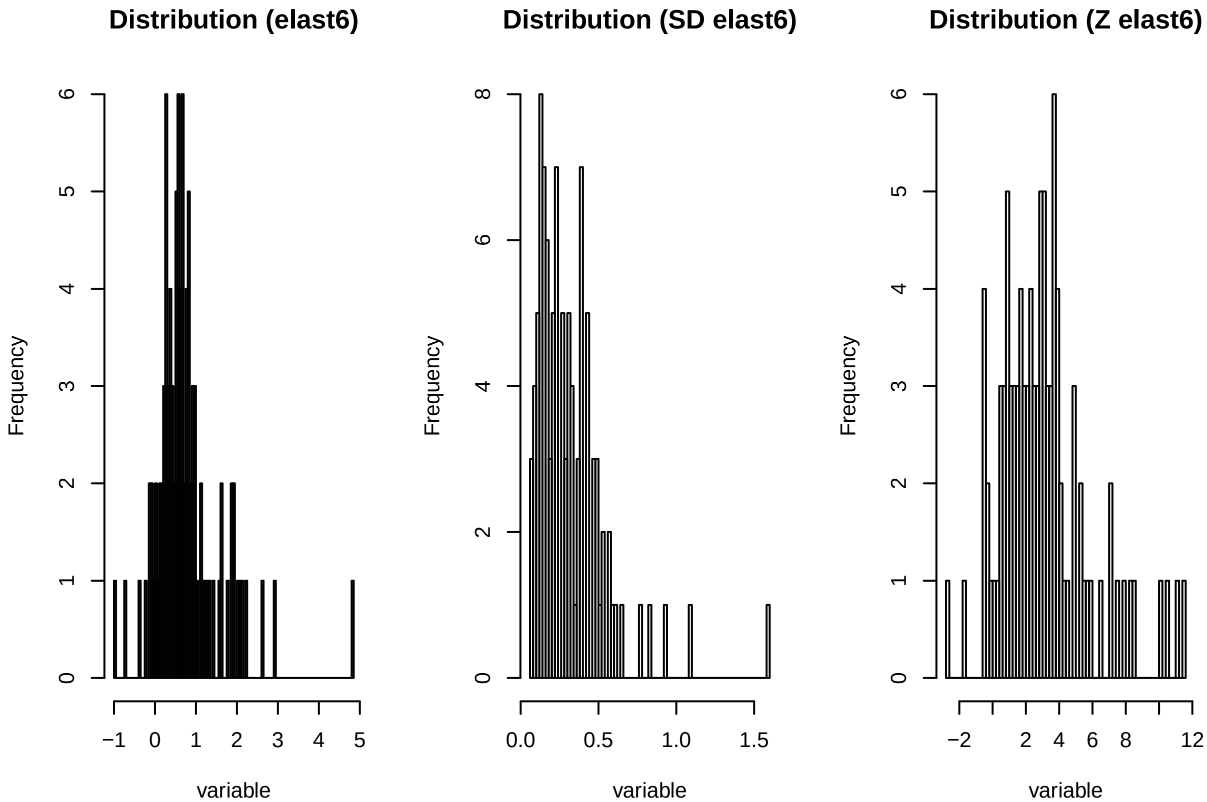
Short-term (elast1)



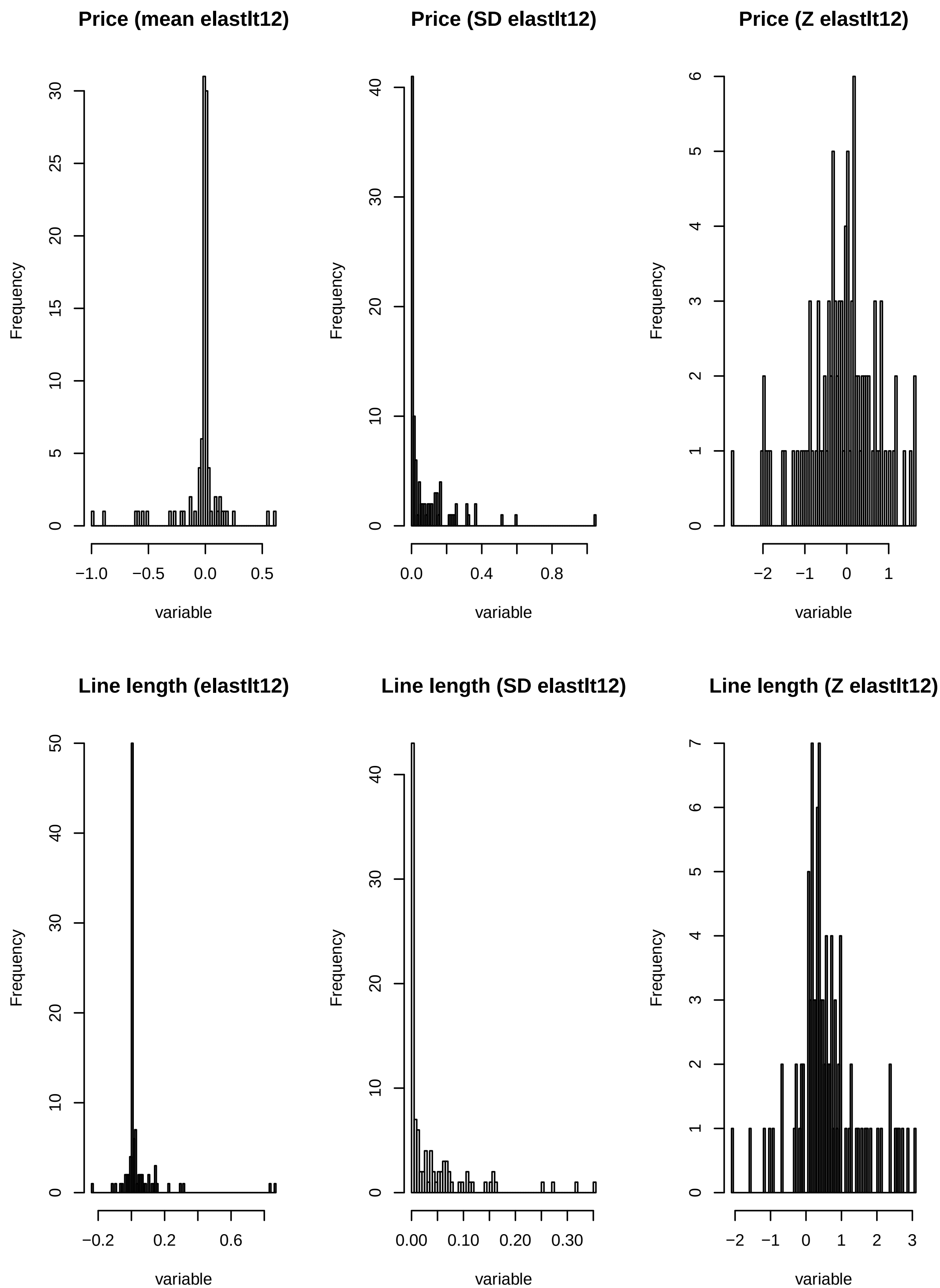

Distribution (elast1)
Distribution (SD elast1)
Distribution (Z elast1)
Frequency
variable
0
2
4
6
8
0.0
0.5
1.0
1.5
1
3
5
0.05
0.15
0.25
7
10

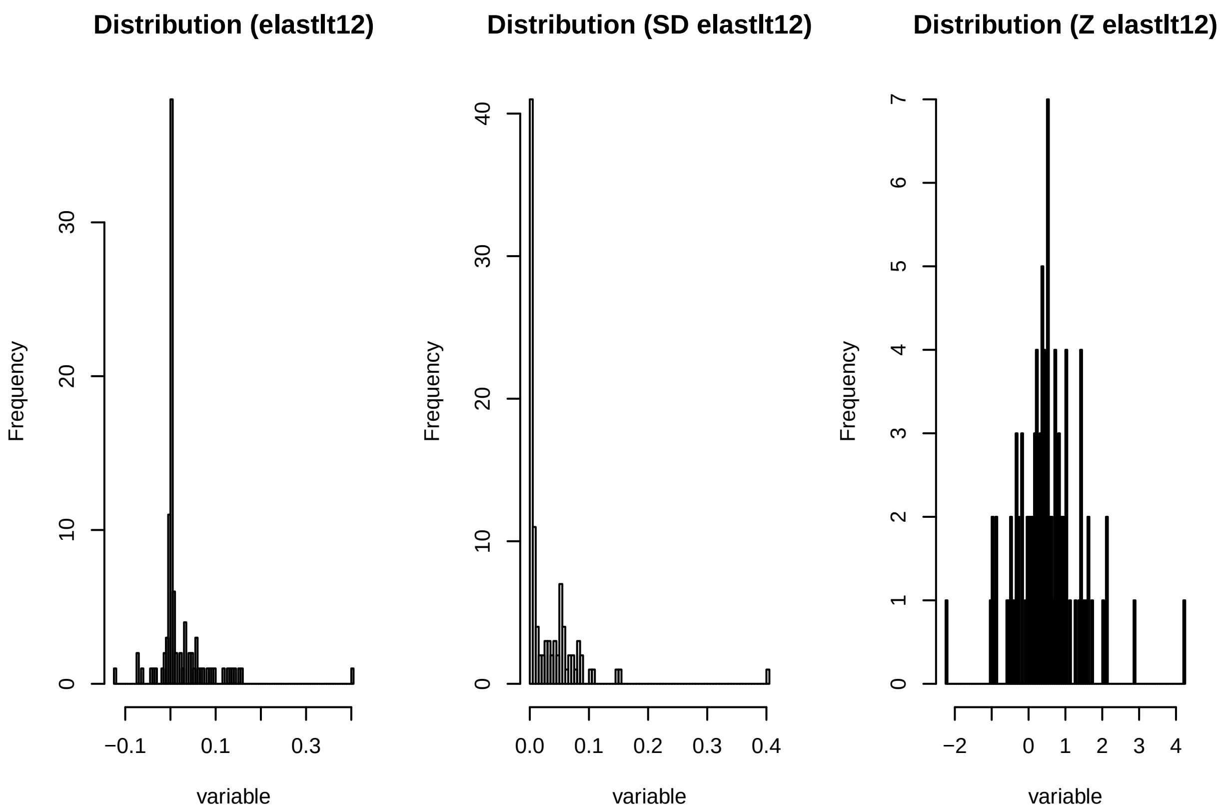
Dust-settling (6 months) (elast6)




Distribution (elast6)
Frequency
variable
Distribution (SD elast6)
Frequency
variable
Distribution (Z elast6)
Frequency
variable

Long-term (12 months) (elast12lt)




Distribution (elastlt12)
Frequency
variable
0
10
20
30
−0.1
0.1
0.3
Distribution (SD elastlt12)
Frequency
variable
0
10
20
30
40
0.0
0.1
0.2
0.3
0.4
Distribution (Z elastlt12)
Frequency
variable
0
1
2
3
4
5
6
7
−2
0
1
2
3
4