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

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	1687	-0.610	-0.530	-0.487	-5.750	5.719	0.071	0.443	0.486
lnrwpspr	elast12	1687	-0.799	-0.589	-0.582	-37.010	94.360	0.099	0.330	0.571
lnrwpspr	elast6	1687	-0.757	-0.588	-0.569	-13.267	38.510	0.097	0.358	0.545
lnrwpspr	elastlt12	1687	-0.002	0.000	0.000	-6.937	12.435	0.053	0.046	0.901
lnwpswdst	elast1	1687	0.641	0.550	0.542	-0.683	5.654	0.892	0.004	0.104
lnwpswdst	elast12	1687	1.190	0.814	0.804	-11.320	17.262	0.650	0.015	0.335
lnwpswdst	elast6	1687	0.981	0.746	0.760	-5.546	11.528	0.712	0.011	0.277
lnwpswdst	elastlt12	1687	0.028	0.001	0.000	-0.962	1.483	0.094	0.026	0.880
lnllen	elast1	1686	0.393	0.334	0.357	-0.618	2.483	0.635	0.007	0.358
lnllen	elast12	1686	1.104	0.805	0.864	-31.789	18.245	0.549	0.026	0.425
lnllen	elast6	1686	0.885	0.699	0.773	-8.543	11.670	0.594	0.020	0.386
lnllen	elastlt12	1686	0.028	0.002	0.000	-6.258	1.986	0.100	0.024	0.876

Descriptive stats by model type

Models in levels

varname	variable	N	mean	median	weightedmean	min	max	perc_positive	perc_negative	perc_ns
lnrwpspr	elast1	857	-0.605	-0.483	-0.447	-5.750	5.719	0.076	0.445	0.480
lnrwpspr	elast12	857	-1.293	-0.998	-0.849	-22.850	94.360	0.071	0.397	0.532
lnrwpspr	elast6	857	-1.122	-0.952	-0.803	-13.267	38.510	0.075	0.417	0.509
lnrwpspr	elastlt12	857	-0.015	0.000	0.000	-2.337	12.435	0.015	0.037	0.947
lnwpswdst	elast1	857	0.637	0.529	0.522	-0.404	5.654	0.886	0.002	0.112
lnwpswdst	elast12	857	1.716	0.986	0.886	-4.910	17.262	0.755	0.006	0.239
lnwpswdst	elast6	857	1.308	0.915	0.862	-2.847	11.528	0.785	0.005	0.210
lnwpswdst	elastlt12	857	0.057	0.001	0.000	-0.415	1.483	0.114	0.001	0.884
lnllen	elast1	856	0.375	0.306	0.339	-0.533	2.483	0.637	0.009	0.354
lnllen	elast12	856	1.515	0.892	0.923	-2.359	18.245	0.617	0.013	0.370
lnllen	elast6	856	1.122	0.793	0.853	-2.162	11.670	0.643	0.012	0.346
lnllen	elastlt12	856	0.055	0.002	0.000	-0.224	1.986	0.121	0.002	0.876

Models in differences

varname	variable	N	mean	median	weightedmean	min	max	perc_positive	perc_negative	perc_ns
lnrwpspr	elast1	394	-0.640	-0.561	-0.545	-4.130	2.888	0.074	0.447	0.480
lnrwpspr	elast12	394	-0.196	0.003	-0.103	-22.801	12.527	0.104	0.140	0.756
lnrwpspr	elast6	394	-0.357	-0.284	-0.286	-10.954	5.532	0.089	0.198	0.713
lnrwpspr	elastlt12	394	0.027	0.039	0.033	-1.969	1.242	0.160	0.107	0.734
lnwpswdst	elast1	394	0.582	0.533	0.503	-0.683	4.200	0.871	0.008	0.122
lnwpswdst	elast12	394	0.477	0.505	0.498	-11.320	8.441	0.264	0.046	0.690
lnwpswdst	elast6	394	0.497	0.466	0.478	-5.546	5.711	0.434	0.030	0.536
lnwpswdst	elastlt12	394	-0.004	0.004	0.003	-0.962	0.761	0.122	0.109	0.769
lnllen	elast1	394	0.362	0.288	0.319	-0.451	1.843	0.536	0.003	0.462
lnllen	elast12	394	0.505	0.439	0.426	-9.352	8.141	0.190	0.058	0.751
lnllen	elast6	394	0.437	0.341	0.371	-4.024	4.125	0.292	0.038	0.670
lnllen	elastlt12	394	0.011	0.006	0.009	-0.888	0.669	0.109	0.096	0.794

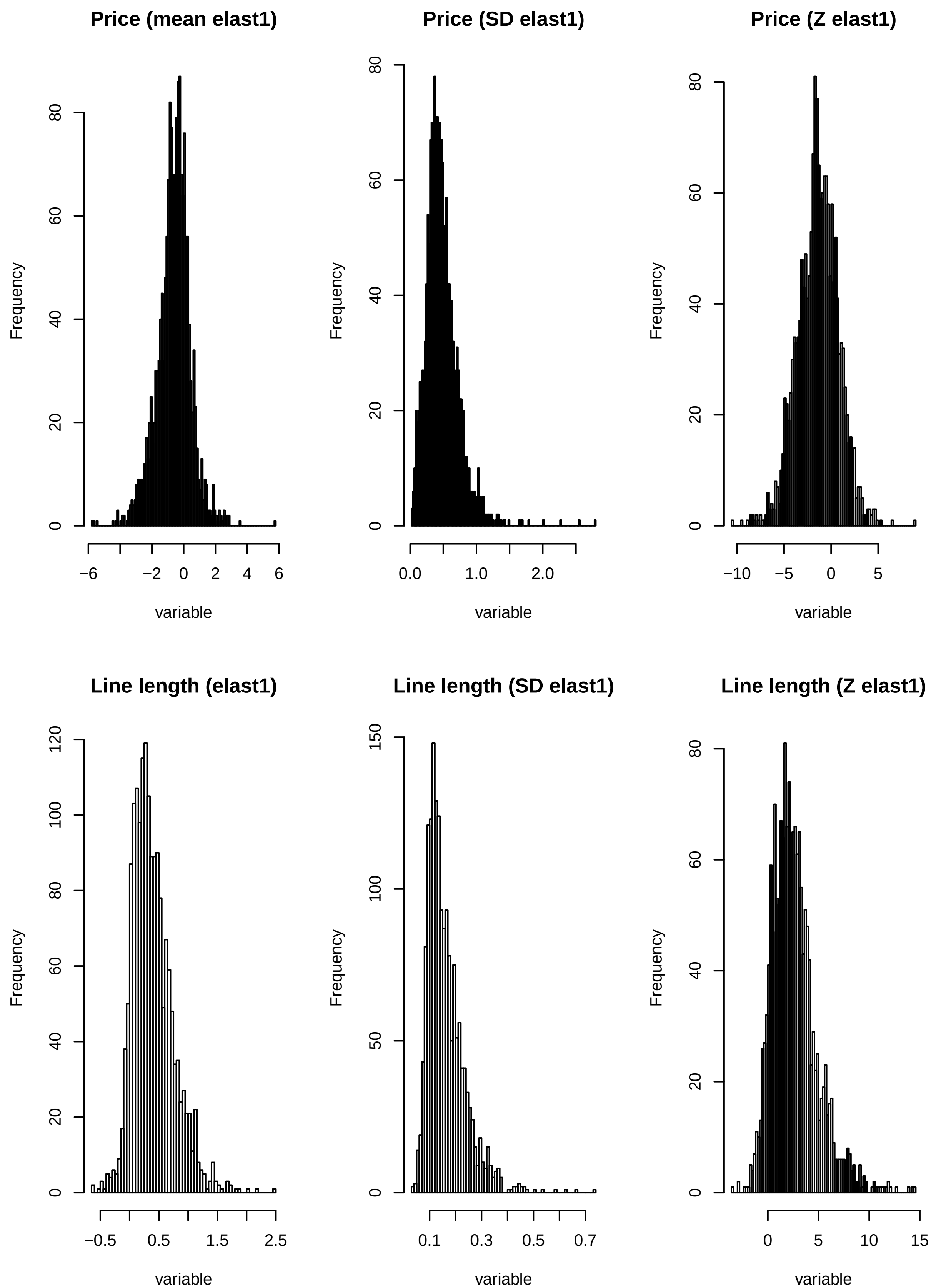
Models in EC

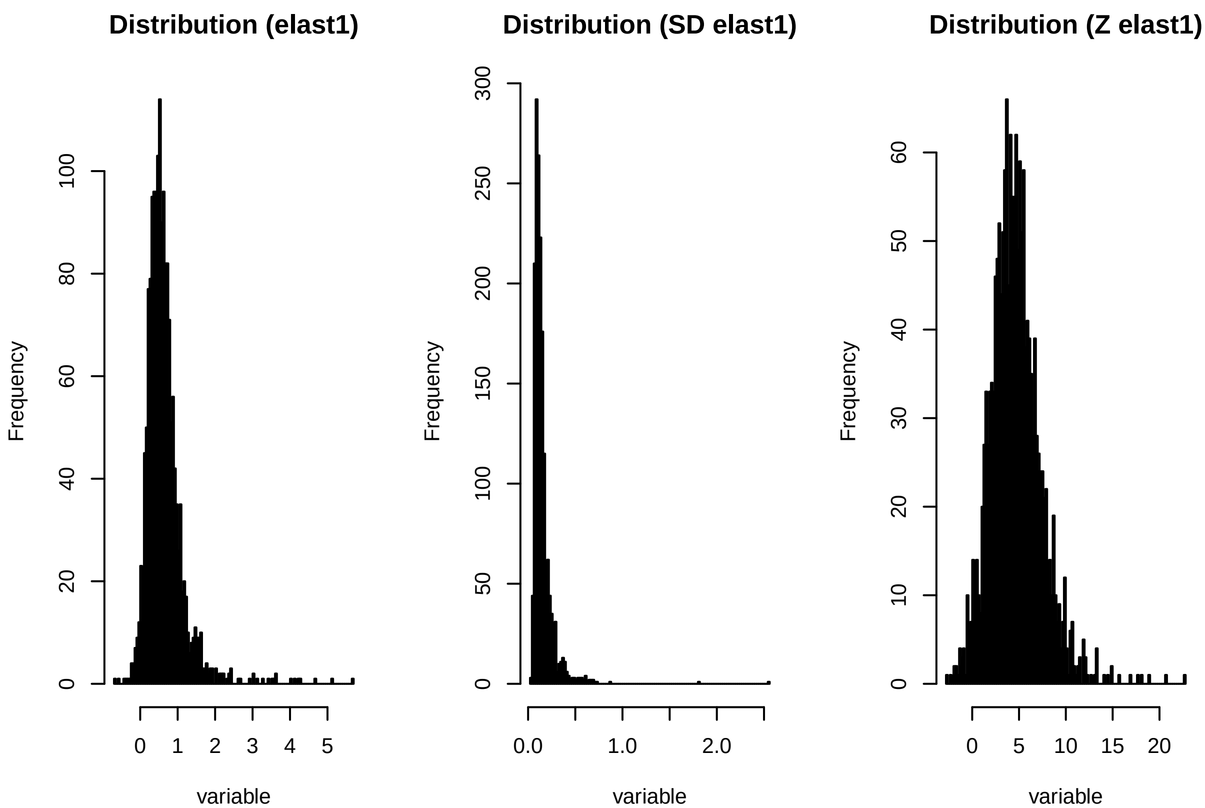
varname	variable	N	mean	median	weightedmean	min	max	perc_positive	perc_negative	perc_ns
lnrwpspr	elast1	436	-0.590	-0.560	-0.534	-3.713	2.734	0.060	0.436	0.505
lnrwpspr	elast12	436	-0.373	-0.366	-0.404	-37.010	25.077	0.149	0.369	0.482
lnrwpspr	elast6	436	-0.400	-0.357	-0.416	-11.469	9.671	0.149	0.388	0.463
lnrwpspr	elastlt12	436	-0.001	0.000	0.000	-6.937	2.766	0.030	0.009	0.961
lnwpswdst	elast1	436	0.702	0.630	0.614	-0.307	4.657	0.924	0.002	0.073
lnwpswdst	elast12	436	0.801	0.753	0.773	-5.629	7.675	0.791	0.007	0.202
lnwpswdst	elast6	436	0.774	0.726	0.748	-1.826	3.262	0.819	0.005	0.177
lnwpswdst	elastlt12	436	0.001	0.000	0.000	-0.716	0.903	0.028	0.000	0.972
lnllen	elast1	436	0.458	0.418	0.430	-0.618	1.672	0.722	0.005	0.273
lnllen	elast12	436	0.838	0.903	0.886	-31.789	5.714	0.741	0.021	0.239
lnllen	elast6	436	0.824	0.856	0.834	-8.543	3.996	0.773	0.021	0.206
lnllen	elastlt12	436	-0.008	0.001	0.000	-6.258	0.397	0.048	0.002	0.950

Plots

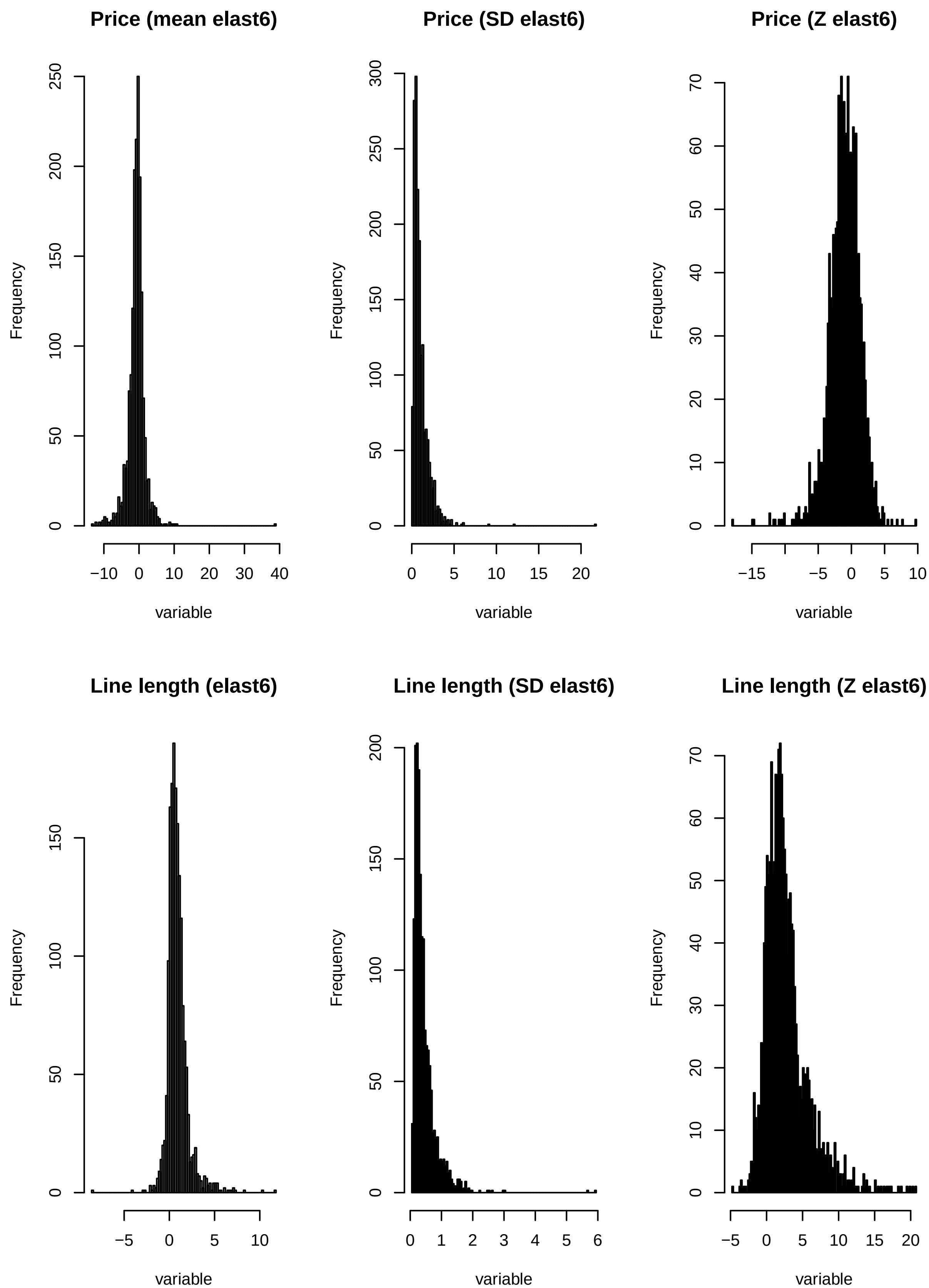
- Distribution of mean parameter
- Distribution of standard errors
- Distribution of z values

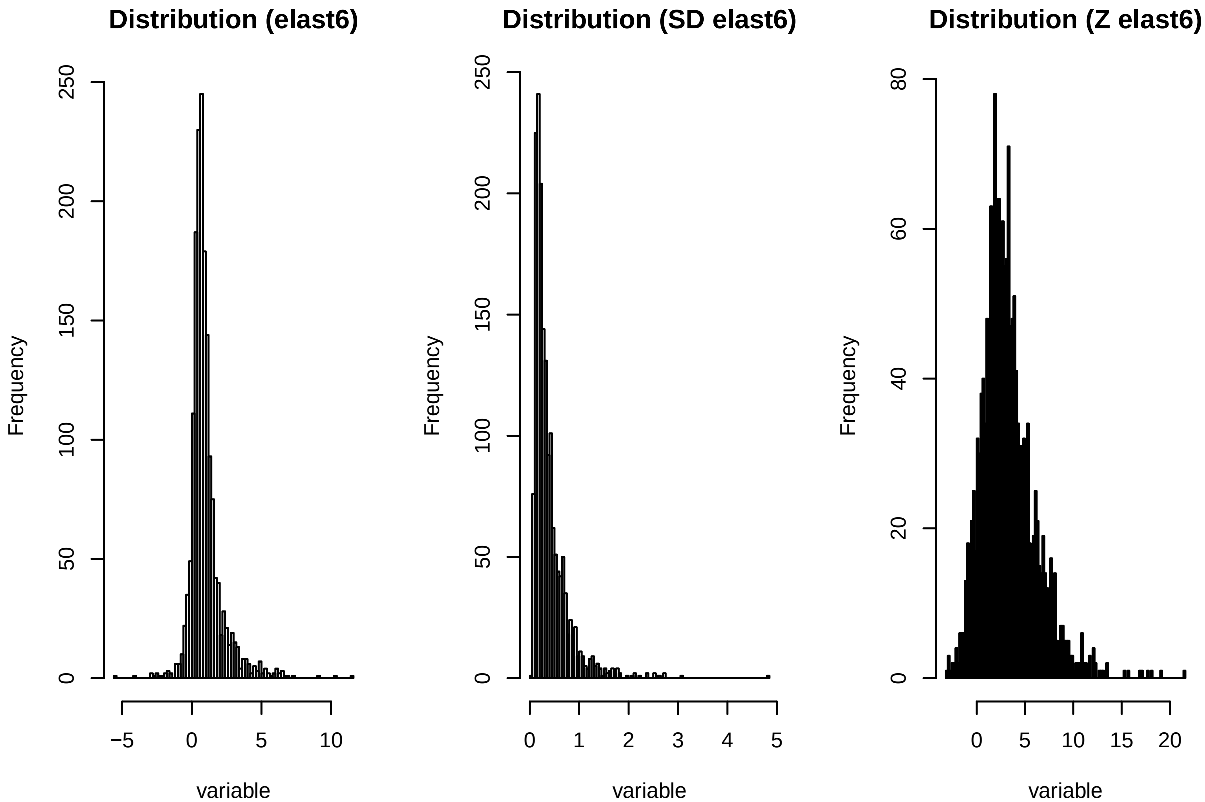
Short-term (elast1)



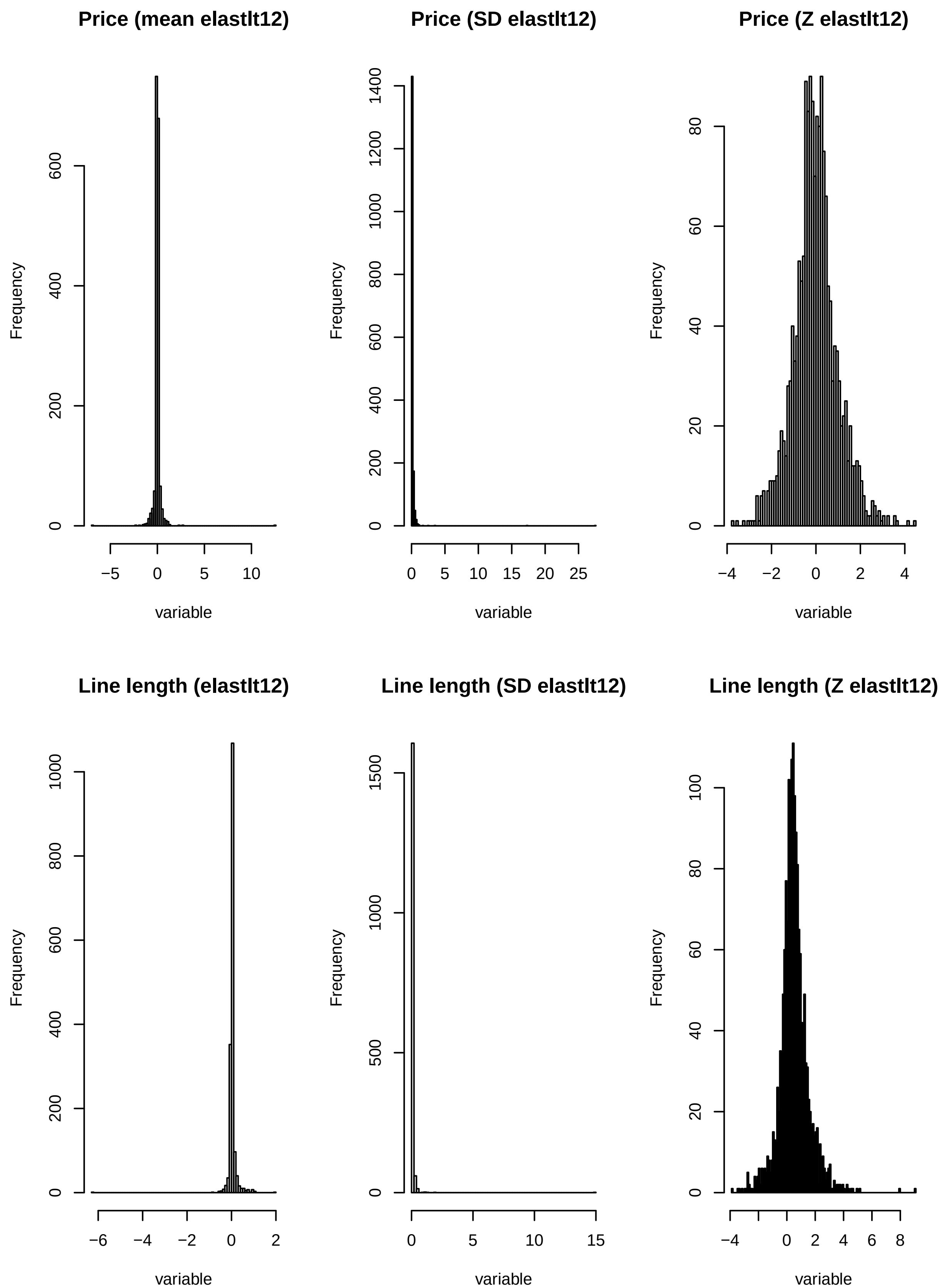

Distribution (elast1)
Frequency
variable
Distribution (SD elast1)
Frequency
variable
Distribution (Z elast1)
Frequency
variable

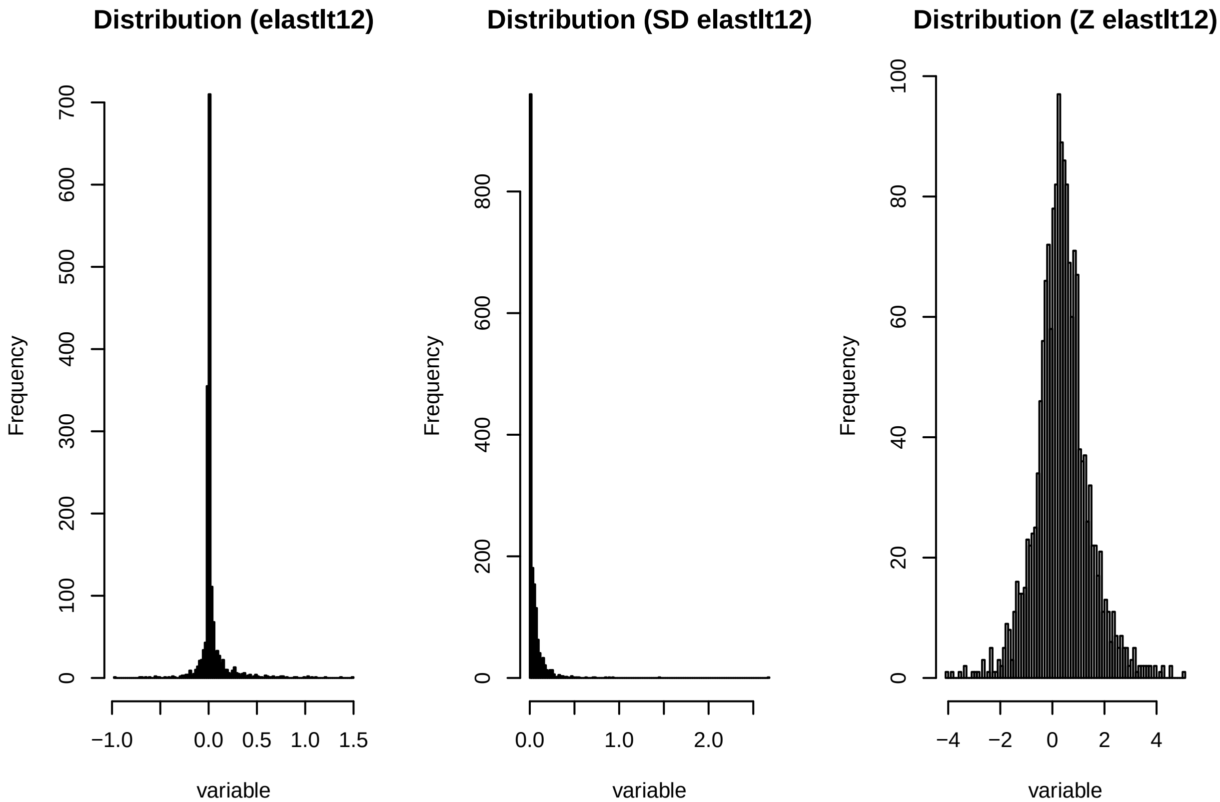
Dust-settling (6 months) (elast6)




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

Long-term (12 months) (elast12lt)




Distribution (elastlt12)
Frequency
variable
−1.0
0.0
0.5
1.0
1.5
0
100
200
300
400
500
600
700
Distribution (SD elastlt12)
Frequency
variable
0.0
1.0
2.0
0
200
400
600
800
Distribution (Z elastlt12)
Frequency
variable
−4
−2
0
2
4
0
20
40
60
80
100