Model selection.

| method | sample | Root mean square error | Root median square error | Mean relative error | Median relative error |
| --- | --- | --- | --- | --- | --- |
| Full Linear Model | in-sample | 0.002689 | 0.000682 | 0.7775285 | 0.2237937 |
| out-of-sample | 0.017523 | 0.006420 | 1.7019584 | 1.0142464 |
| Forward Sel. BIC | in-sample | 0.002690 | 0.000683 | 0.7878439 | 0.2251068 |
| out-of-sample | 0.017524 | 0.006416 | 1.6957745 | 1.0141758 |
| Forward Sel. AIC | in-sample | 0.002690 | 0.000683 | 0.7878439 | 0.2251068 |
| out-of-sample | 0.017524 | 0.006416 | 1.6957745 | 1.0141758 |
| Backward Sel. BIC | in-sample | 0.002691 | 0.000664 | 0.7610054 | 0.2249999 |
| out-of-sample | 0.017525 | 0.006410 | 1.6999945 | 1.0145548 |
| Backward Sel. AIC | in-sample | 0.002690 | 0.000679 | 0.7772601 | 0.2243120 |
| out-of-sample | 0.017523 | 0.006425 | 1.7013314 | 1.0142662 |
| glmnet, alpha=0 | in-sample | 0.003258 | 0.001166 | 1.1154920 | 0.2734281 |
| out-of-sample | 0.003298 | 0.001170 | 0.8949981 | 0.2763236 |
| glmnet, alpha=0.5 | in-sample | 0.002707 | 0.000678 | 0.7890329 | 0.2233335 |
| out-of-sample | 0.002832 | 0.000703 | 0.7808082 | 0.2305726 |
| glmnet, alpha=1 | in-sample | 0.002713 | 0.000690 | 0.7905316 | 0.2251203 |
| out-of-sample | 0.002834 | 0.000745 | 0.7779076 | 0.2324876 |
| PCR, ncomp=20 | in-sample | 0.005743 | 0.003013 | 6.9013490 | 0.4846118 |
| out-of-sample | 0.017369 | 0.009485 | 7.1745299 | 1.4730952 |
| PCR, ncomp=30 | in-sample | 0.002976 | 0.001290 | 1.4639607 | 0.3034738 |
| out-of-sample | 0.017506 | 0.006724 | 1.9409006 | 1.0748631 |
| PCR, ncomp=42 | in-sample | 0.002695 | 0.000652 | 0.7291361 | 0.2229956 |
| out-of-sample | 0.017523 | 0.006439 | 1.6953778 | 1.0158309 |
| PLS, ncomp=23 | in-sample | 0.002692 | 0.000667 | 0.7490649 | 0.2218220 |
| out-of-sample | 0.017525 | 0.006426 | 1.7053929 | 1.0143160 |
| PLS, ncomp=32 | in-sample | 0.002689 | 0.000682 | 0.7758223 | 0.2239908 |
| out-of-sample | 0.017523 | 0.006419 | 1.7011661 | 1.0142417 |