Model selection.

| method | sample | Root mean square error | Root median square error | Mean relative error | Median relative error |
| --- | --- | --- | --- | --- | --- |
| Full Linear Model | in-sample | 0.002734 | 0.000636 | 0.7046759 | 0.2282952 |
| out-of-sample | 0.017152 | 0.006153 | 1.9507310 | 1.0107332 |
| Forward Sel. BIC | in-sample | 0.002742 | 0.000635 | 0.6444638 | 0.2295074 |
| out-of-sample | 0.017161 | 0.006170 | 1.9322060 | 1.0097714 |
| Forward Sel. AIC | in-sample | 0.002736 | 0.000650 | 0.7081881 | 0.2282092 |
| out-of-sample | 0.017152 | 0.006148 | 1.9476370 | 1.0104498 |
| Backward Sel. BIC | in-sample | 0.002737 | 0.000634 | 0.7064685 | 0.2271171 |
| out-of-sample | 0.017156 | 0.006142 | 1.9389026 | 1.0103383 |
| Backward Sel. AIC | in-sample | 0.002736 | 0.000644 | 0.7179392 | 0.2278993 |
| out-of-sample | 0.017151 | 0.006145 | 1.9414679 | 1.0101888 |
| glmnet, alpha=0 | in-sample | 0.003249 | 0.001120 | 0.9636891 | 0.2831045 |
| out-of-sample | 0.003171 | 0.001231 | 1.1497554 | 0.2694052 |
| glmnet, alpha=0.5 | in-sample | 0.002746 | 0.000651 | 0.7496565 | 0.2347804 |
| out-of-sample | 0.002674 | 0.000783 | 0.8036244 | 0.2064220 |
| glmnet, alpha=1 | in-sample | 0.002753 | 0.000671 | 0.7495161 | 0.2326960 |
| out-of-sample | 0.002679 | 0.000773 | 0.7970880 | 0.2072897 |
| PCR, ncomp=20 | in-sample | 0.005806 | 0.002951 | 7.0088093 | 0.5245342 |
| out-of-sample | 0.016828 | 0.009285 | 9.0148329 | 1.2867657 |
| PCR, ncomp=30 | in-sample | 0.003008 | 0.001249 | 1.4356435 | 0.3195659 |
| out-of-sample | 0.017098 | 0.006568 | 2.1785494 | 1.0620255 |
| PCR, ncomp=37 | in-sample | 0.002740 | 0.000644 | 0.6706061 | 0.2279826 |
| out-of-sample | 0.017155 | 0.006192 | 1.9565182 | 1.0115613 |
| PLS, ncomp=21 | in-sample | 0.002738 | 0.000633 | 0.6758075 | 0.2271399 |
| out-of-sample | 0.017151 | 0.006187 | 1.9586559 | 1.0103278 |
| PLS, ncomp=32 | in-sample | 0.002734 | 0.000635 | 0.7033835 | 0.2282871 |
| out-of-sample | 0.017152 | 0.006153 | 1.9502487 | 1.0107217 |