Model selection.

| method | sample | Root mean square error | Root median square error | Mean relative error | Median relative error |
| --- | --- | --- | --- | --- | --- |
| Full Linear Model | in-sample | 0.002973 | 0.001111 | 2.340 | 0.390 |
| out-of-sample | 0.014922 | 0.004183 | 1.970 | 1.082 |
| Forward Sel. BIC | in-sample | 0.002988 | 0.001143 | 2.325 | 0.392 |
| out-of-sample | 0.014914 | 0.004152 | 1.966 | 1.087 |
| Forward Sel. AIC | in-sample | 0.002975 | 0.001132 | 2.324 | 0.389 |
| out-of-sample | 0.014925 | 0.004184 | 1.968 | 1.084 |
| Backward Sel. BIC | in-sample | 0.002974 | 0.001110 | 2.331 | 0.389 |
| out-of-sample | 0.014923 | 0.004182 | 1.966 | 1.082 |
| Backward Sel. AIC | in-sample | 0.002974 | 0.001110 | 2.331 | 0.389 |
| out-of-sample | 0.014923 | 0.004182 | 1.966 | 1.082 |
| glmnet, alpha=0 | in-sample | 0.003241 | 0.001135 | 2.571 | 0.406 |
| out-of-sample | 0.003256 | 0.001150 | 1.100 | 0.382 |
| glmnet, alpha=0.5 | in-sample | 0.002985 | 0.001139 | 2.265 | 0.389 |
| out-of-sample | 0.002968 | 0.001177 | 0.965 | 0.376 |
| glmnet, alpha=1 | in-sample | 0.002985 | 0.001137 | 2.314 | 0.391 |
| out-of-sample | 0.002967 | 0.001175 | 0.960 | 0.374 |
| PCR, ncomp=20 | in-sample | 0.003989 | 0.002094 | 4.295 | 0.647 |
| out-of-sample | 0.014700 | 0.005351 | 3.004 | 1.455 |
| PCR, ncomp=30 | in-sample | 0.003122 | 0.001430 | 1.789 | 0.407 |
| out-of-sample | 0.014953 | 0.004504 | 1.868 | 1.101 |
| PCR, ncomp=35 | in-sample | 0.002994 | 0.001163 | 1.722 | 0.369 |
| out-of-sample | 0.014925 | 0.004281 | 1.836 | 1.087 |
| PLS, ncomp=16 | in-sample | 0.002988 | 0.001154 | 1.844 | 0.382 |
| out-of-sample | 0.014925 | 0.004264 | 1.872 | 1.087 |
| PLS, ncomp=32 | in-sample | 0.002973 | 0.001110 | 2.356 | 0.389 |
| out-of-sample | 0.014922 | 0.004183 | 1.976 | 1.082 |