DOW-JONES FORECASTING.

LAFC ABK MCM

```
## Loading required package:  ggplot2
## Loading required package:  Matrix
## Loading required package:  SparseM
##
## Attaching package:  'SparseM'
##
## The following object is masked from 'package:base':
##
##    backsolve
##
## Loading required package:  glmnet
## Loaded glmnet 1.9-8
##
## Loading required package:  xtable
## Loading required package:  expm
##
## Attaching package:  'expm'
##
## The following object is masked from 'package:Matrix':
##
##    expm
##
## Loading required package:  plyr
## Loading required package:  multicore
## WARNING: multicore has been superseded and will be removed shortly
## Loading required package:  SGL
## Loading required package:  grpreg
## Loading required package:  biglm
## Loading required package:  DBI
## Loading required package:  doMC
## Loading required package:  foreach
## Loading required package:  iterators
## Loading required package:  parallel
```

This file (the source `.Rnw` version of it) contains the code necessary to replicate the forecasting and model evaluation results.

I am going to estimate a small variety of models on the Dow-Jones data, but compute only 474 forecasts. Another document using a more wider set of models and computing much fewer of forecasts has also been created. The chunk below sets some estimation parameters and defines the model specifications that will be estimated.

Date: August 31, 2014.

Now that the models are selected and the estimation parameters set, we can estimate them. Below we estimate and forecast with the set of models defined above.

```
## [1] TRUE
```

```
## Called from: roll.stattab(mod.smpl.all, diag.ind = diag.ind, hsel = hsel)
## debug: return(fctab)
```

Portfolio table 1

Portfolio table 2

Model	h	beat bmk	RMAFE	Med AFE			Max AFE			frobenius		
				A	D	O	A	D	O	A	D	O
roll NoChange NA none dj none lcov 1000 none	1			0.36	0.65	0.35	6.1	6.1	2.34	14.91	9.37	10.83
roll NoChange NA none dj none lcov 1000 none	5			0.55	0.96	0.53	7.23	7.23	2.87	19.89	11.74	15.19
roll NoChange NA none dj none lcov 1000 none	20			0.66	1.16	0.65	7.85	7.85	3.18	22.93	13.1	17.94
roll NoChange NA none dj cens lcov 1000 none	1			0.33	0.57	0.33	3.53	3.53	1.47	11.22	5.98	9.22
roll NoChange NA none dj cens lcov 1000 none	5			0.46	0.79	0.45	4.51	4.51	1.91	15.02	7.89	12.41
roll NoChange NA none dj cens lcov 1000 none	20			0.58	0.98	0.57	5.12	5.12	2.22	18.05	9.25	15.17
roll var 1 Lasso none dj cens lcov 1000 none	1			0.38	0.61	0.37	3.34	3.32	1.74	12.04	5.93	10.27
roll var 1 Lasso none dj cens lcov 1000 none	5			0.45	0.73	0.44	3.83	3.63	2.32	14.35	6.81	12.38
roll var 1 Lasso none dj cens lcov 1000 none	20			0.69	0.95	0.68	4.54	4	3.34	20.01	8.04	18.12
post var 1 Lasso none dj cens lcov 1000 none	1			0.35	0.54	0.34	3.11	3.04	1.81	11.39	5.36	9.88
post var 1 Lasso none dj cens lcov 1000 none	5			0.46	0.72	0.45	3.9	3.68	2.37	14.78	6.83	12.81
post var 1 Lasso none dj cens lcov 1000 none	20			0.64	0.89	0.63	4.49	3.94	3.2	19.26	7.73	17.35
roll var 1 Lasso ols dj cens lcov 1000 none	1			0.36	0.62	0.36	3.5	3.41	1.88	12.01	6.04	10.17
roll var 1 Lasso ols dj cens lcov 1000 none	5			0.48	0.76	0.47	4.01	3.63	2.61	15.04	6.84	13.18
roll var 1 Lasso ols dj cens lcov 1000 none	20			1.51	4.745e+09	1.48	1.498e+13	1.498e+13	9.53	2.145e+13	2.145e+13	42.89
post var 1 Lasso ols dj cens lcov 1000 none	1			0.35	0.54	0.34	3.52	3.16	2.44	12.25	5.45	10.79
post var 1 Lasso ols dj cens lcov 1000 none	5			1.11	0.84	1.15	23.95	4.33	23.59	61.85	8	60.79
post var 1 Lasso ols dj cens lcov 1000 none	20			45033	Inf	45337	Inf	Inf	1612798	Inf	Inf	3977184
roll var 1 Lasso lasso dj cens lcov 1000 none	1			0.38	0.61	0.37	3.48	3.44	1.84	12.29	6.06	10.49
roll var 1 Lasso lasso dj cens lcov 1000 none	5			0.45	0.73	0.44	3.94	3.76	2.43	14.63	6.88	12.7
roll var 1 Lasso lasso dj cens lcov 1000 none	20			0.67	0.94	0.66	4.64	3.99	3.5	20.64	8	18.79
post var 1 Lasso lasso dj cens lcov 1000 none	1			0.34	0.54	0.34	3.21	3.14	1.81	11.4	5.44	9.85
post var 1 Lasso lasso dj cens lcov 1000 none	5			0.45	0.73	0.44	3.95	3.77	2.41	14.74	6.89	12.78
post var 1 Lasso lasso dj cens lcov 1000 none	20			0.74	0.91	0.74	5.14	3.97	4.08	23.2	7.87	21.48

TABLE 1. Summary statistics, h-step ahead recursive forecasts, all statistics averaged across forecast iterations.