

DOW-JONES FORECASTING.

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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.

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
```

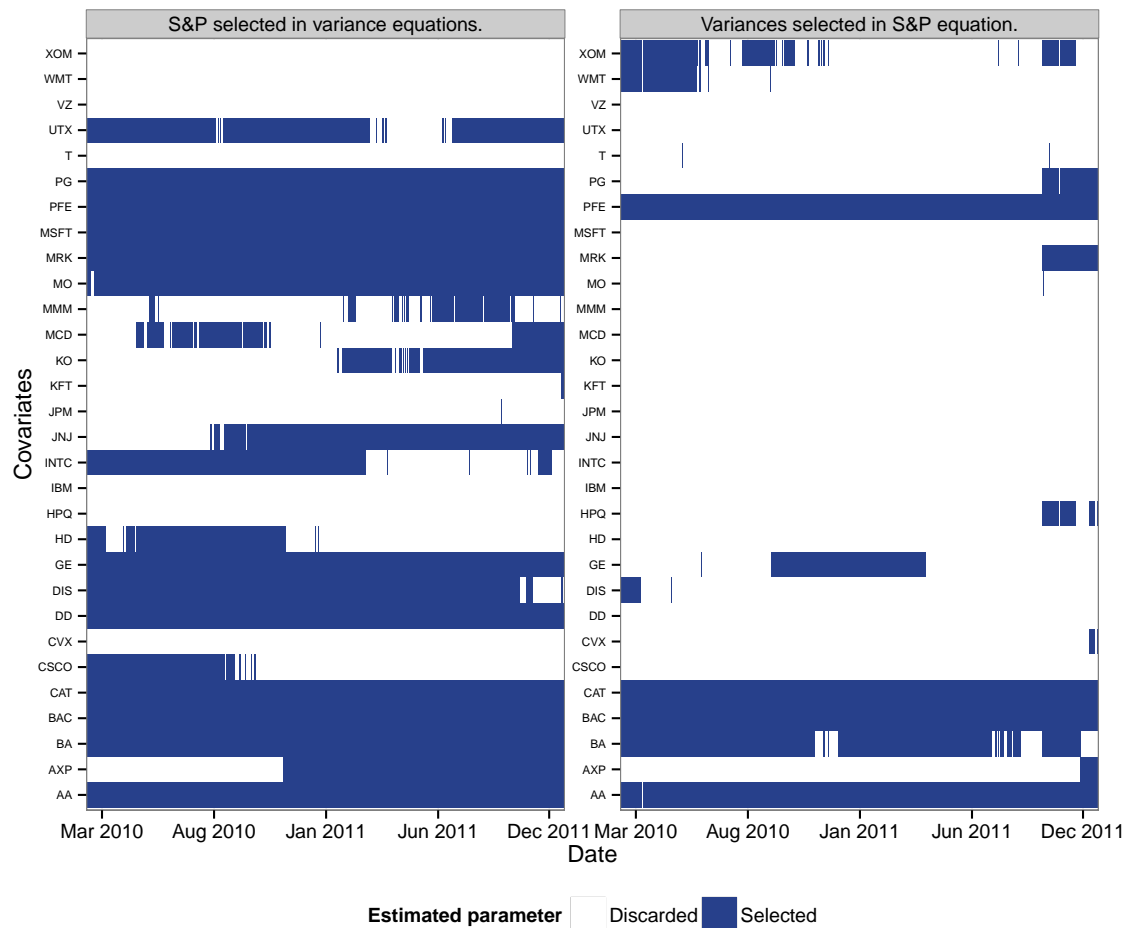
Here are the models for daily data

```
mod.smpl <- matrix(rbind(c("var", 1, "Lasso", "none", "fac.cens.lcov", 1000,
  "none")), ncol = 7, dimnames = c(list(Model = NULL, spec = c("Model", "Lag",
  "Estimator", "Adaptive", "Data", "Est.smpl", "Restrictions"))))

dates.fc <- tail(read.table("../data/dates")$V1, -1021)
# extracting
parmat <- fc.xtpar(mod.smpl, dates.all = dates.fc)
```

Model	h		beat bmk	RMAFE	Med AFE		Max AFE		frobenius		
					A	D	A	D	A	D	O
roll var 1 Lasso none fac cens lcpd 1000 none	1				0.37	0.61	0.37	3.32	1.77	12.44	5.93
roll var 1 Lasso none fac cens lcpd 1000 none	5				0.44	0.74	0.43	3.65	2.33	14.77	6.84
roll var 1 Lasso none fac cens lcpd 1000 none	20				0.68	0.95	0.67	4.02	3.16	20.46	8.08
post var 1 Lasso none fac cens lcpd 1000 none	1				0.34	0.55	0.33	3.07	1.76	11.68	5.39
post var 1 Lasso none fac cens lcpd 1000 none	5				0.43	0.74	0.42	3.82	3.72	14.68	6.92
post var 1 Lasso none fac cens lcpd 1000 none	20				0.69	1.36	0.67	5.5	5.22	23.1	10.89

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



```
## diagonal equations
## % latex table generated in R 3.2.0 by xtable 1.7-4 package
## % Thu Jun 18 21:14:35 2015
## & Basic Materials & Communications & Consumer, Cyclical & Consumer, Non-cyclical & En
## \hline
## 1 & 0.75 & 0.40 & 0.13 & 0.51 & 0.23 & 0.30 & 0.54 & 0.38 & 0.50 \\
## 2 & 0.17 & 0.48 & 0.37 & 0.37 & 0.24 & 0.20 & 0.25 & 0.32 & 0.01 \\
## 3 & 0.00 & 0.41 & 0.99 & 0.25 & 0.64 & 0.20 & 0.11 & 0.48 & 0.06 \\
## 4 & 0.29 & 0.23 & 0.09 & 0.56 & 0.19 & 0.12 & 0.26 & 0.17 & 0.18 \\
## 5 & 0.00 & 0.19 & 0.28 & 0.18 & 1.00 & 0.05 & 0.08 & 0.18 & 0.19 \\
## 6 & 0.47 & 0.45 & 0.46 & 0.30 & 0.02 & 1.00 & 0.36 & 0.57 & 0.35 \\
## 7 & 0.25 & 0.19 & 0.09 & 0.22 & 0.02 & 0.04 & 0.64 & 0.10 & 0.44 \\
## 8 & 0.35 & 0.54 & 0.35 & 0.29 & 0.30 & 0.20 & 0.32 & 0.70 & 0.02 \\
## 9 & 1.00 & 0.31 & 0.25 & 0.74 & 0.00 & 0.53 & 0.81 & 0.41 & 1.00 \\
## 10 & 0.00 & 0.00 & 0.00 & 0.00 & 0.02 & 0.00 & 0.01 & 0.01 & 0.00 \\
## 11 & 0.00 & 0.01 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
## 12 & 0.00 & 0.01 & 0.02 & 0.00 & 0.00 & 0.00 & 0.01 & 0.00 & 0.00 \\
## 13 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
## 14 & 0.02 & 0.01 & 0.01 & 0.03 & 0.02 & 0.00 & 0.03 & 0.02 & 0.00 \\
## 15 & 0.01 & 0.03 & 0.01 & 0.02 & 0.01 & 0.01 & 0.02 & 0.03 & 0.02 \\
## 16 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.01 \\
## 17 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
## 18 & 0.00 & 0.01 & 0.00 & 0.03 & 0.00 & 0.00 & 0.02 & 0.00 & 0.00
```

```

##      \hline
## off-diagonal equations
## % latex table generated in R 3.2.0 by xtable 1.7-4 package
## % Thu Jun 18 21:14:35 2015
## & Basic Materials & Communications & Consumer, Cyclical & Consumer, Non-cyclical & En
##      \hline
## 1 & 0.78 & 0.24 & 0.13 & 0.24 & 0.24 & 0.70 & 0.23 & 0.28 & 0.38 \\
## 2 & 0.45 & 0.68 & 0.54 & 0.30 & 0.25 & 0.36 & 0.33 & 0.39 & 0.04 \\
## 3 & 0.08 & 0.26 & 0.64 & 0.15 & 0.05 & 0.34 & 0.14 & 0.18 & 0.10 \\
## 4 & 0.57 & 0.53 & 0.49 & 0.62 & 0.48 & 0.66 & 0.58 & 0.53 & 0.30 \\
## 5 & 0.11 & 0.14 & 0.20 & 0.20 & 0.34 & 0.07 & 0.08 & 0.06 & 0.04 \\
## 6 & 0.11 & 0.08 & 0.17 & 0.06 & 0.03 & 0.55 & 0.09 & 0.11 & 0.08 \\
## 7 & 0.66 & 0.44 & 0.42 & 0.49 & 0.38 & 0.30 & 0.77 & 0.46 & 0.21 \\
## 8 & 0.16 & 0.48 & 0.53 & 0.35 & 0.38 & 0.52 & 0.30 & 0.87 & 0.08 \\
## 9 & 1.22 & 0.77 & 1.20 & 0.32 & 0.26 & 0.83 & 1.08 & 0.63 & 0.94 \\
## 10 & 0.09 & 0.11 & 0.11 & 0.10 & 0.08 & 0.11 & 0.09 & 0.09 & 0.05 \\
## 11 & 0.03 & 0.05 & 0.05 & 0.04 & 0.02 & 0.05 & 0.04 & 0.03 & 0.02 \\
## 12 & 0.11 & 0.13 & 0.18 & 0.11 & 0.06 & 0.09 & 0.10 & 0.10 & 0.05 \\
## 13 & 0.07 & 0.08 & 0.08 & 0.10 & 0.04 & 0.09 & 0.07 & 0.07 & 0.06 \\
## 14 & 0.17 & 0.14 & 0.14 & 0.13 & 0.23 & 0.10 & 0.15 & 0.14 & 0.05 \\
## 15 & 0.15 & 0.15 & 0.15 & 0.14 & 0.09 & 0.22 & 0.14 & 0.15 & 0.09 \\
## 16 & 0.08 & 0.07 & 0.08 & 0.07 & 0.04 & 0.07 & 0.08 & 0.05 & 0.04 \\
## 17 & 0.04 & 0.05 & 0.05 & 0.05 & 0.03 & 0.07 & 0.04 & 0.05 & 0.04 \\
## 18 & 0.11 & 0.09 & 0.10 & 0.13 & 0.05 & 0.14 & 0.13 & 0.09 & 0.12 \\
##      \hline

```