Var

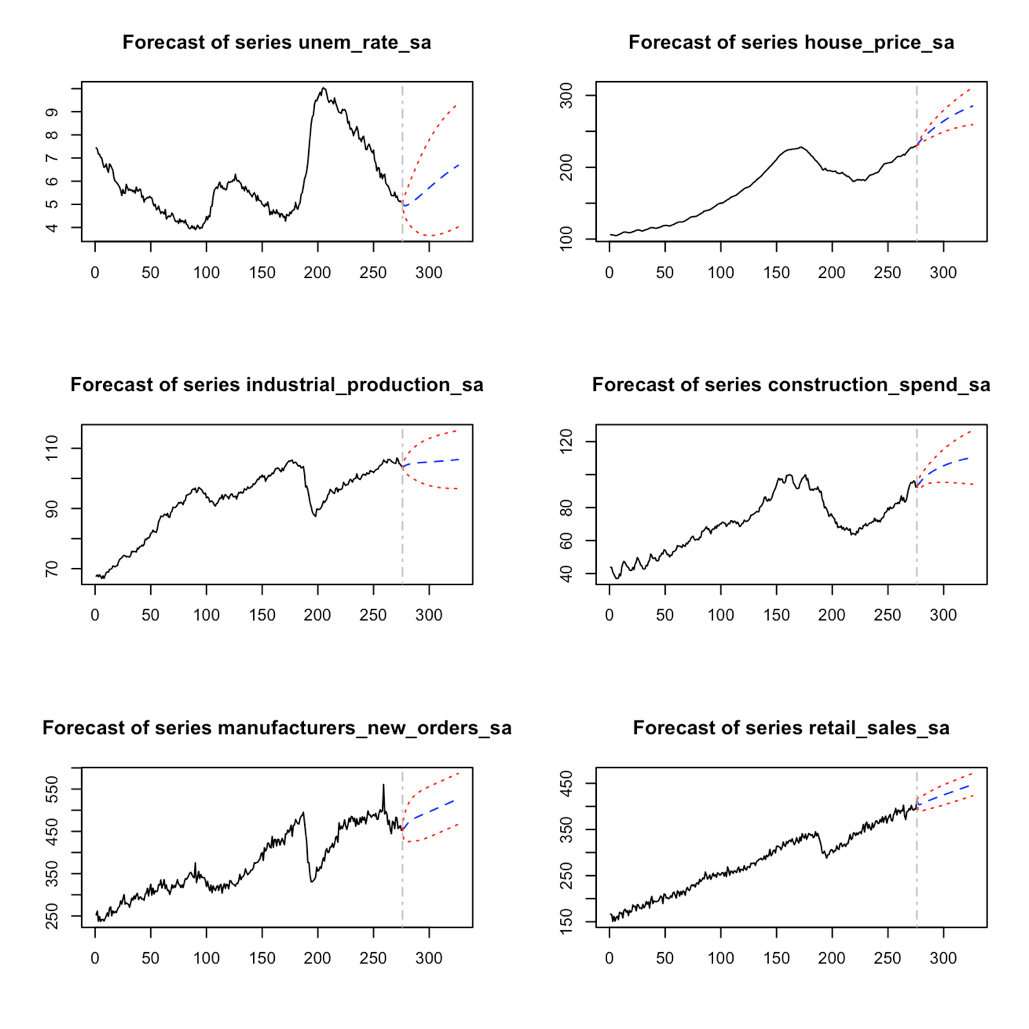
Group4

July 22, 2016

##### Fit a VAR on non stationary data

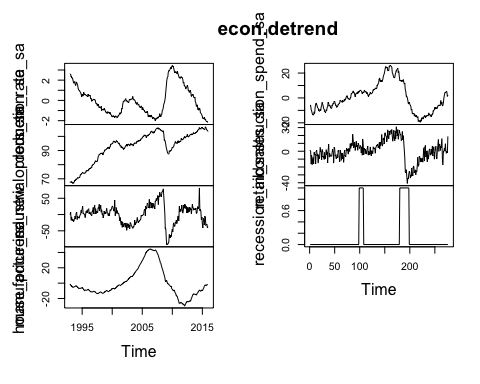
mdl.var = VAR(y = econ.sa[, 1:6], type = "both", p = 1, lag.max = 1)  
#acf(residuals(mdl.var))  
#plot(predict(mdl.var, n.ahead = 50))

##### 



##### Detrend the data

econ.detrend = econ.sa  
  
econ.detrend$unem\_rate\_sa = with(econ.detrend, unem\_rate\_sa - fitted(lm(unem\_rate\_sa ~ time(unem\_rate\_sa))))  
econ.detrend$industrial\_production\_sa = with(econ.detrend, industrial\_production\_sa - fitted(lm(unem\_rate\_sa ~ time(industrial\_production\_sa))))  
econ.detrend$manufacturers\_new\_orders\_sa = with(econ.detrend, manufacturers\_new\_orders\_sa - fitted(lm(manufacturers\_new\_orders\_sa ~ time(manufacturers\_new\_orders\_sa))))  
econ.detrend$house\_price\_sa = with(econ.detrend, house\_price\_sa - fitted(lm(house\_price\_sa ~ time(house\_price\_sa))))  
econ.detrend$construction\_spend\_sa = with(econ.detrend, construction\_spend\_sa - fitted(lm(construction\_spend\_sa ~ time(construction\_spend\_sa))))  
econ.detrend$retail\_sales\_sa = with(econ.detrend, retail\_sales\_sa - fitted(lm(retail\_sales\_sa ~ time(retail\_sales\_sa))))  
plot.ts(econ.detrend)



##### Fit a VAR on non stationary, but detrended data

mdl.var = VAR(y = econ.detrend[, 1:6], type = "none", p = 1, lag.max = 1)  
#acf(residuals(mdl.var))  
#plot(predict(mdl.var, n.ahead = 50))

