

Problem Set #10
Spring 2010

When turning in your problem set, turn in both your STATA .do files (or log file) as well as the output.

1. Exercise 15.1 from Stock-Watson
2. Exercise 15.3 from Stock-Watson
3. The file “gdp.dta” has been augmented to include the following quarterly variables
 - $t3$ = rate on 3-month T-bill
 - $t12$ =rate on 12-month T-bill (only available starting 1953Q2)
 - $t120$ =rate on 120-month T-bill (only available starting 1953Q2)
 - aaa =rate on AAA corporate bonds
 - baa =rate on BAA corporate bonds

Create the transformed variables

- $spread12=t12-t3$
- $spread120=t120-t3$
- $junk=baa-aaa$
- $dt3=t3-L.t3$
- $dt12=t12-L.12$

Describe in words the variables you created

4. Test the following hypotheses. For each, use three lags of all variables
 - (a) $dt3$ does not Granger-cause gdp
 - (b) $dt12$ does not Granger-cause gdp
 - (c) $spread12$ does not Granger-cause gdp
 - (d) $spread120$ does not Granger-cause gdp
 - (e) $junk$ does not Granger-cause gdpInterpret your findings
5. Reestimate the save five models, restricting the sample to 1954Q2-2009Q4 (so all have the same number of observations). Of these five, which would you select to forecast GDP? Explain your reasoning.
6. Use your selected model to make point and interval forecast for 2010Q1, Q2, Q3 and Q4.