You are going to replace and update Hansen and Singleton (1982) seminal *Econometrica* piece with a twist.

**Hansen and Singleton, 1982 ,“Generalized Instrumental Variables Estimation of Nonlinear Rational Expectations Models” , *Econometrica*,Vol. 50, No. 5 (Sep., 1982), pp. 1269-1286**

Table 1 is the essential part their paper. Greene goes over part of this paper in his example 13.1. You are only going to use the CRSP value weight index (you don’t have access to the equally weighted). They use monthly consumption data that you can obtain from FRED. FRED has APIs and Excel plug-in as well as a nice website.

There three periods you are to examine:

1959:2- 1978:12

1979:1 – 2019:12

1959:2– 2019:12

In your replication you should have

* Go over in detail you/their data collection and variable formation.
* Have tables of sample stats on each of your variables
* Include all code used to run as an appendix in your paper.
* Go over thoroughly the equation you are estimating and how its estimated. Why all the lags?
* Explain hypothesis. What are these Over identification test all about?
* EXPLAIN YOUR FINDINGS! How and why are your estimates different than theirs? Have estimates changed over the years?
* Now the twist. In estimating the risk aversion coefficient I want you to allow for a shift in risk aversion during NBER designated recessions. Document any shift and explain.