

# Applied Time-Series Econometrics

## Homework 2

Due to February 18<sup>th</sup>

### Exercise 1

From Fred, download monthly data on unemployment rate from 1950 to 2015.

- a Using conditional maximum likelihood, estimate the models that you thought (from the previous problem set) could match the data relatively well. Report standard errors of the estimated coefficients using the Fisher information matrix.
- b Compute the Bayesian Information criteria and the Akaike Information criteria for selecting one of these models. Do they agree?
- c Plot the sample autocorrelation function and the partial autocorrelation for the estimated residuals. Do they look like white noise?