Bent E. Sørensen

Dynamic Macro 2007. Self Test.

1. Explain how to consistently estimate a consistent pos. semidefinite variance matrix using the Newey-West (aka Bartlett) kernel.

2. Write down the GMM criterion function, starting from the vector of orthogonality conditions.

3. Write down the variance-covariance estimator for the parameters estimated by GMM in the case where the optimal weighting matrix is used and in the case of an arbitrary weighting matrix W?

4. What is the J-test? What does it test for? When is it valid?

5. For structural VAR model

$$A_0 y_t = C + A_1 y_{t-1} + ... + A_k y_{t-k} + u_t \ ,$$

give 2 examples of ways to identify a the model.

6. Explain how to estimate β in the panel-data regression

$$y_{it} \ = \ \alpha_i + \beta x_{it} + \epsilon_{it} \ .$$

7. Describe a consistent estimator of β for the model

$$y_{it} \ = \ \alpha_i + \beta y_{it-1} + \epsilon_{it} \ .$$