

Department of Economics, BUE

Econometric Modelling 1a

Assessed Exercise 2008-9

TO BE HANDED IN TO YASMINE ON OR BEFORE 11th JANUARY 2009

This exercise asks you to replicate and extend the work reported in a study of the demand for food in South Africa by Dunne and Edkins, published in the *South African Journal of Economics*. The relevant work estimates a log linear demand equation for food using data for 1970-2002. A copy of the paper and the data are available at:

<http://carecon.org.uk/BUE/Econometrics/>

Explain carefully what you are doing at each stage.

Exercise:

1. Briefly explain where equation 4 comes from and replicate the results presented in Table 1. Discuss the results explaining what the various reported statistics tell you.
2. State the models that are nested in this general model and the parameter restrictions they imply. Test these restrictions, report the results and discuss briefly.
3. Impose homogeneity on the general model and test the restriction. Add in the 1972 dummy, reestimate and retest the homogeneity restriction.
4. Briefly discuss the results in Table 3 and compare with those in Table 1.
5. Derive the long run relation. Replicate the individual and joint tests that the coefficients on $\ln rpf$ and rx are 1 and -1 respectively with the 1972 dummy included –as in footnote 6.
6. Estimate the order of integration of each of the variable used in the demand equation explaining the implications of your results.
7. Test for cointegration using a unit root test on the residuals of the static model and if justified estimate an error correction model using the Engle Granger 2 stage procedure.
8. Briefly describe the two approaches used in the exercise, their relevant merits and make a comparative assessment of the results.

Important Notes:

1. **You will get most of your marks for the quality of your explanation and discussion rather than for the fact that you got the right answer.**
2. **This assessment is meant to be your own work. While you may work with others, or share knowledge and experience, while using Microfit, you must write the results up independently.**

- 3. Marks will be given for the quality of your exposition and discussion. So do not simply present results, explain and discuss them.**
- 4. Do not simply present printed Microfit output, as you will lose marks, integrate the results into the text and use Tables and Figures.**