

MICROFIT FOR WINDOWS

LESSON I: INTRODUCTION

1. Starting Microfit

Click Start. Go to Programs. Click on Microfit. The opening window of Microfit will come up. After about 45 seconds, the next screen will come up. Maximise this window.

2. Working with Microfit

To work with Microfit, you have to use different Editors, Buttons and Menus.

Task: Identify the Variables Button, Data Editor, and Command (Process) Editor.

Click on available Menus to see some of the options.

3. Inputting Data

To input data choose File \ New.

The top part of the panel allows you to choose the data frequency. This can be: undated (e.g.: for cross-section data), monthly, quarterly and annual data. On choosing the desired option you will have to determine the row (number of observations) and column (number of variables) size.

Task: Click on each data frequency to see how these options change.

Task: Enter data from page 107, Problem 6, in Maddala, Introduction to Econometrics (3/e). Since we will work with annual data, choose annual data and set **start** and **end** years. Define number of variables. Click on Okay.

The Variables Window will appear. The LHS column allows you to define the variable name – GDP, Price, Export, Profit, LGDP, etc. The RHS column allows you to explain the variable: Log of GDP. The variables are QRATE (Quit Rate) and URATE (Unemployment Rate). Note that names are in capitals in whatever way you type it.

Now click on Data. The Data Editor window comes up. This is in the form of a spreadsheet. In each cell, we have ***NONE***. Enter data by clicking on the cell and typing in data. Press down cursor to move to next cell.

After entering the data save the file. Click File \ Save. Move to the appropriate folder (MPHIL \ Group?) and save. Note that all files are to be saved by you in this folder. The name of the file is QRATE107.

4. Creating Intercepts, Time trends, Seasonal dummies

Click on Command Editor. At the bottom part of the panel there are buttons to create intercept, time trend and seasonal dummies.

Task: Click on Intercept and time trend to create these variables. Name them as **Int** and **Time**. Then check the Variables window and Data Window. Save the file again in same manner. You will be asked whether to overwrite the earlier file. Click Okay.

There are 3 buttons for creating seasonal dummies. Read Manual (page 41-43) to see how they are different. Later on you can create these dummies as an exercise.

5. Formula

You can create new variables using formulas. Click on Help \ Command \ Typing Formula and Commands. Read this later. To create new variable type:

<New Name> = <Formula>

and Click Go. For instance: LQRATE = Log(Qrate) creates log of quit rate. A = qrate + urate is another type of formula.

Different formulas are given in the pop down box on the right side of the process editor. Powers are given by: $x=y^z$. To create lagged and lead variables of n: $y=x(-n)$ or $y=x(+n)$. Example. To create lag of order 3: $y=x(-3)$ and lead of order 2: $y=x(+2)$.

Tasks: Create log of qrate, cube of urate, lag (2) of qrate and lead (1) of urate. Check their values in the data windows.

Note that if you require these values later on you have to save the file.

6. Commands

Read Command in Help later on. Or you can go through page Chapter 4 of the Manual.

We do not require the variables created. To delete them type

DELETE <Variable Names>

in the command editor and Click Go to delete them. If you want to add a new variable W, type ADD W, and then click GO.

You can draw histograms, plot data and obtain descriptive statistics.

Commands	Operations performed
COR X	Descriptive statistics for X
COR X Y	Descriptive statistics for X and Y and correlation matrix
SAMPLE 1965 1969; COR X	Descriptive statistics for X for period 1965 to 1969
COR X(4)	Autocorrelation coefficients for X up to order 4. Maximum value possible is Min (12, one-third of sample size). Required for Box Jenkins.
HIST X	Draws histogram. This can be drawn for part of the sample also by adding sample T1 to T2
PLOT X Y Z	Plots X, Y and z against time
SCATTER X Y	Scatter diagram for X against Y
XPLOT X1 ... X50 Y	Plots X1 to X50 against Y. Maximum 50 variables can be plotted against Y
Sample 3 10	For undated data
Sample 1960 1970	For annual data
Sample 50H2 1960H1	For half yearly data
Sample 75Q3 86Q3	For seasonal data

7. Combining Two FIT Files

Sometimes we may have entered the data in two different files but we want to merge the two files and analyse the entire data set.

Create a fit file named *gasolene1*. This should contain four variables: K, C, M and PE. This file has annual data for the period 1947 to 1960. Enter the data from Maddala (Table 4.8: pp. 193). Save the file.

Suppose that you suddenly have obtained data on the same variables for the period 1961 to 1969. Open a new file and enter the data. Name the second file as *gasolene2* and save it. To combine this file with *gasolene1* proceed as follows: File\Add and choose *gasolene1*. Click Open. This will augment your existing data set with the data in the earlier file. Save the file again.

Now suppose you have data on PT, POP, L and DI (Y in the data set). You may add them to the file *gasolene2* by creating new variables. This can be done by typing ADD <Name of the new variable> and clicking start. Repeat for each of the new variables to be added. Then go to the Data Window and input the data.

However, some times we already have two files containing subsets of the required data. In such cases we have to combine the two files rather than input the new data. We will now show how this can be done.

Input this data in a new file *gasolene* for the entire period. Save it. We now wish to combine the two files *gasolene2* and *gasolene*. Go to File\Add and select *gasolene2*. This will augment your existing data set with the earlier one.

8. Reading XLS Files

Sometimes the data may have been entered in an EXCEL file. This can also be read in Microfit. First open the file C:\Mphil\Problems\Food151.

Tasks: Do you know how to:

1. Create time trend?
2. Sum cells?
3. Create formula on Excel?

Click File\Save as. Name the file as food1511 in your Folder. Click pop down box File type. Scroll down and choose CSV (Comma Delimited). Click save. Close Excel. Click No when you are asked about the format of the file.

Now open Microfit. Click File \ open. Choose CSV in File Type and move to appropriate directory. Click Okay. Check if the file has been imported successfully.

9. Practice Lessons:

- 1) Enter chart in page 349 (Table 9.1) of Maddala in Excel.
 - a) Save as both Excel and CSV file and check whether file can be imported.
Name the files pork349 and pork3491 respectively.
- 2) Enter chart in Maddala, page 357 (Table 9.2) into Microfit directly.
 - a) Create intercepts, time trends and log of all variables. Save the file as wine357.
 - b) Practice other transformations. Do not save them.
 - c) Try to run the regression equation given in Maddala.
- 3) Enter data of page 194 (Table 4.9) , Maddala in Microfit. Save as food194.
 - a) Create lags for variable PD up to the order 4. Save these lags.
 - b) Plot variables against time and against each other.
- 4) Enter data in Microfit manual, page 32-33, in two files. Try to combine these files into a single file. Repeat this exercise for data in pages 34-35.