



Università Commerciale  
Luigi Bocconi

# Lab Session 1 – Introduction to Eviews

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20192– Financial Econometrics

Winter/Spring 2019

# Instructions for the lab sessions (1/3)

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- There will be a total of 6 sessions that will take place in the lab, including this one
- As already discussed in Lecture 0, attendance to the lab sessions is not compulsory, but an active participation to the labs gives access to the “attending” track of the course
- Each lab session (excluding this one, which is introductory) may carry a score up to a maximum of 4%; therefore the maximum score from the labs is 20%
- In each lab, there will be a part in which you will have to produce some results; in order to receive a grade, you need to save these results following the guidelines specified at the beginning of each session

# Instructions for the lab sessions (2/3)

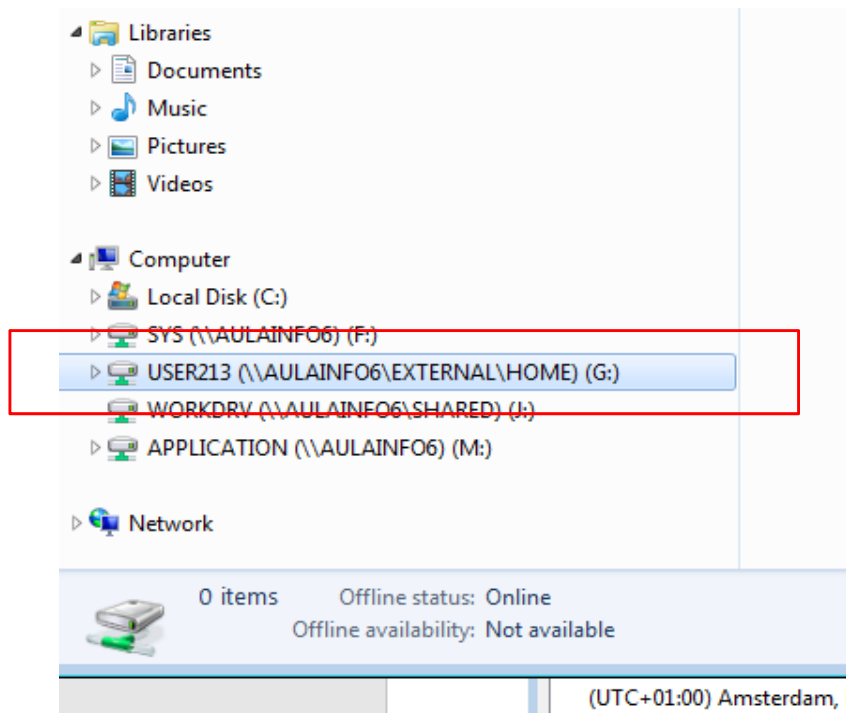
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- In particular, lab will have the following structure:
  - ❖ the instructor will perform a set of exercises related to the topic of the session
  - ❖ you will be given some time (say, 30-40 minutes) to perform a variant of these exercises on your own
  - ❖ short debriefing and wrap up
- You are supposed to work on the lab's computers; if you use your personal computer (and we strongly discourage that) you will be in any case required to upload your work on the lab's network
- You are responsible for saving your work in the appropriate directory, no exceptions; other locations will not be checked and you will not receive a grade

# Instructions for the lab sessions (3/3)

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- You will be required to deliver a word file with name “LASTNAME\_IDNUMBER” containing copies of the tables and/or plots that you were asked to produce (detailed guidelines will be given at the beginning of each session)
- The file must be saved in disk G:



# Additional resources

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- We will not post the material any material from the lab in the official page of the course (to avoid confusion as lab is meant to be self-contained and truly optional)
- However, the data, together with the workfile of the exercise performed by the instructor, will be available at the website: <https://essentialoftimeseries.wordpress.com/>
- In the website you can also find a set of tutorials about Eviews
- Again, this material is provided as an additional help for those of you that may be interested (for instance for their thesis) but is not required for the final exam

# Schedule of the labs (1/2)

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- Lab 1 – Introduction
  - Class 15: Feb 19, 16.15-17.45
  - Class 16: Feb 20, 8.45-10.15
  - Class 17: Feb 20, 10.30-12.00
- Lab 2 – Autoregressive Moving Average Models
  - Class 15: Feb 26, 16.15-17.45
  - Class 16: Feb 26, 12.30-14.00
  - Class 17: Feb 26, 10.30-12.00
- Lab 3 – Vector Autoregressive Models
  - Class 15: Mar 15, 14.30-16.00
  - Class 16: Mar 14, 8.45-10.15
  - Class 17: Mar 15, 12.30-14.00

# Schedule of the labs (2/2)

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- Lab 4 – Cointegration and Error Correction Models
  - Class 15: Apr 5, 14.30-16.00
  - Class 16: Apr 3, 8.45-10.15
  - Class 17: Apr 5, 12.30-14.00
- Lab 5 – Univariate volatility modelling (ARCH and GARCH)
  - Class 15: May 3, 14.30-16.00
  - Class 16: May 6, 12.30-14.00
  - Class 17: May 6, 14.30-16.00
- Lab 6 – Advanced univariate volatility modelling
  - Class 15: May 10, 14.30-16.00
  - Class 16: May 10, 12.30-14.00
  - Class 17: May 10, 16.15-17.45

# Getting ready for the lab (1/2)

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- In order to log in in the computer, use the following credentials
  - Username: UserXXX
  - Password: aulaWU1
- Check your computer's date: if it is not today's date (it may happen) you need to change it back to current date, otherwise you may face problems in accessing Eviews
- To open Eviews you need to go to the start button and look for Novell ZENworks
- Open Novell ZENworks and look for scientific applications (in Italian “applicazioni scientifiche”); Eviews is among them



## Slide 8

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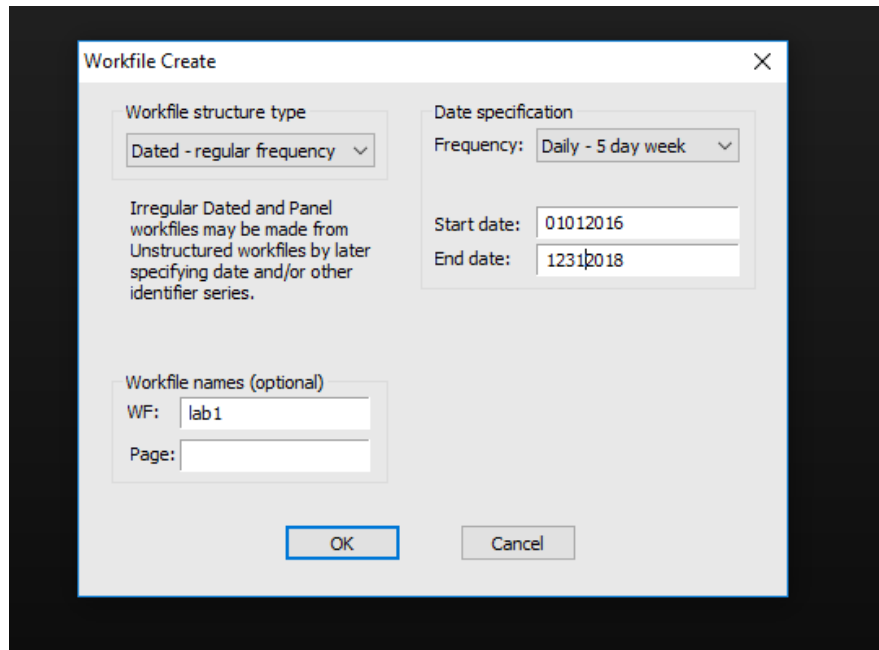
**WU1**

spero sia vero anche per altro lab

Windows User; 11/02/2019

# Getting ready for the lab (2/2)

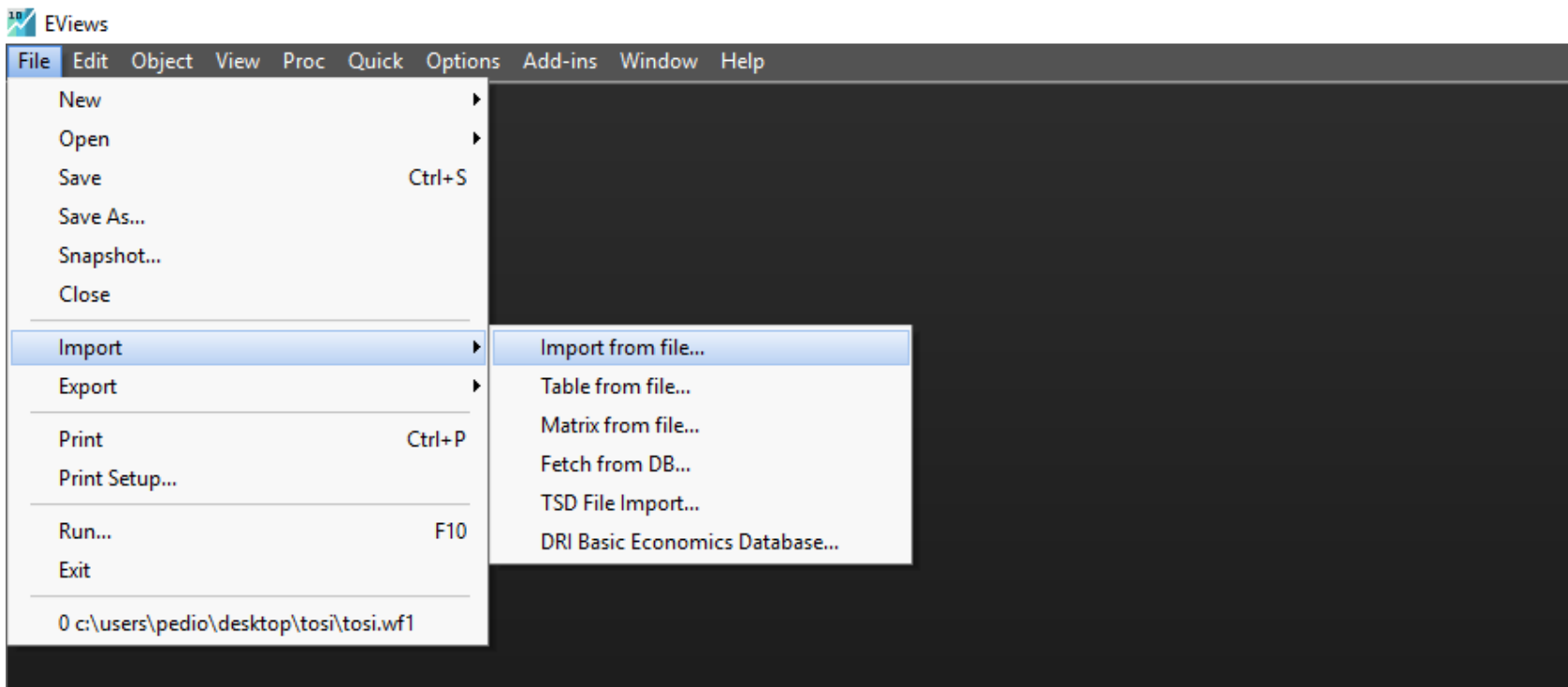
- Open Eviews and create a new workfile (FILE => NEW WORKFILE)
- For the purpose of today's lab create a dated (regular frequency) workfile, with daily (5-days) frequency
  - Start date: 01/01/2016
  - End date: 31/12/2018



Note that in Eviews  
date are expressed as  
**MMDDYYYY**

# Upload the data (1/3)

- You will find the data (in excel format) that are needed for your exercise in the J folder (where you also find the instructions for your assignment) WU2
- To upload data from Excel into Eviews you need to do the following:



## Slide 10

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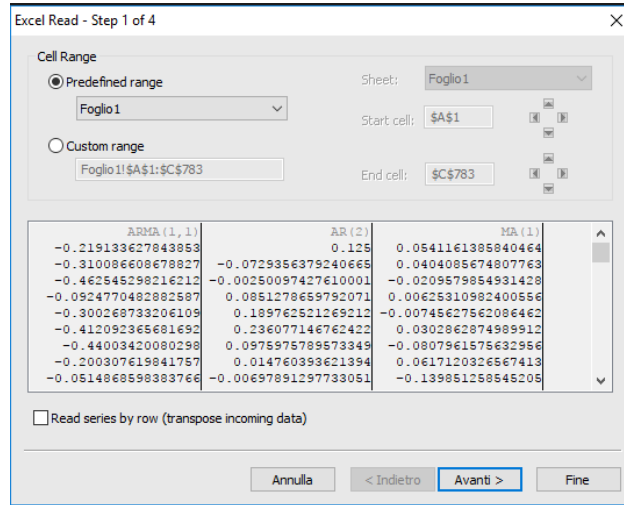
**WU2**

check other lab

Windows User; 11/02/2019

# Upload the data (2/3)

- Once you select the file from which you want to upload the data you simply follow Eviews' guided procedure



Excel Read - Step 1 of 4

Cell Range

☒ Predefined range Sheet: Foglio1

☐ Custom range

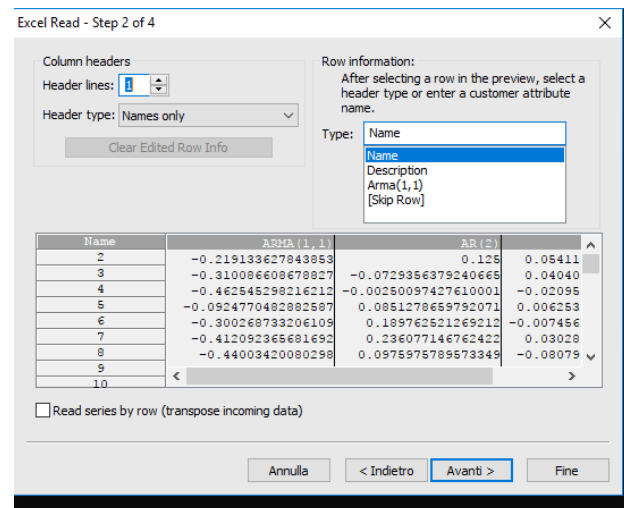
Start cell: \$A\$1 End cell: \$C\$783

Read series by row (transpose incoming data)

Annula < Indietro Avanti > Fine

ARMA (1, 1)	AR (2)	MA (1)
-0.219133627843853	0.125	0.0541161385840464
-0.310086608678827	-0.0729356379240665	0.0404085674807763
-0.462545298216212	-0.00250097427610001	-0.0209579854931428
-0.0924770482882587	0.0851278659792071	0.00625310982400556
-0.300268733206109	0.189762521269212	-0.00745627562086462
-0.412092365681692	0.236077146762422	0.0302862874989912
-0.44003420080298	0.0975975789573349	-0.0807961575632956
-0.200307619841757	0.014760393621394	0.0617120326567413
-0.0514868598383766	-0.00697891297733051	-0.139851258545205

- You can also set custom range if you want to specify a range that is different from the one automatically selected by Eviews



Excel Read - Step 2 of 4

Column headers

Header lines: 1

Header type: Names only

Clear Edited Row Info

Row information:

After selecting a row in the preview, select a header type or enter a customer attribute name.

Type: Name

Name

Description

Arma(1,1)

[Skip Row]

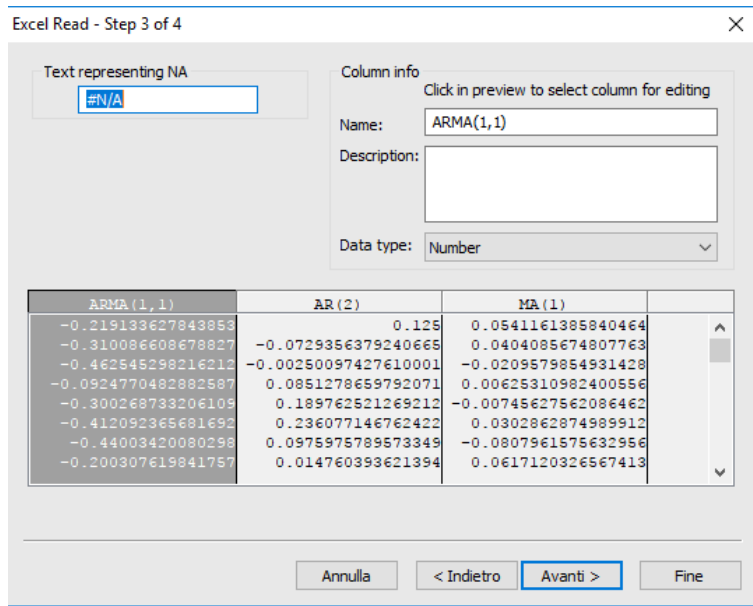
Read series by row (transpose incoming data)

Annula < Indietro Avanti > Fine

Name	ARMA (1, 1)	AR (2)	MA (1)
2	-0.219133627843853	0.125	0.05411
3	-0.310086608678827	-0.0729356379240665	0.04040
4	-0.462545298216212	-0.00250097427610001	-0.02095
5	-0.0924770482882587	0.0851278659792071	0.006253
6	-0.300268733206109	0.189762521269212	-0.007456
7	-0.412092365681692	0.236077146762422	0.03028
8	-0.44003420080298	0.0975975789573349	-0.08079
9			
10			

- You can specify whether your data have headers

# Upload the data (3/3)



Excel Read - Step 3 of 4

Text representing NA: #N/A

Column info

Click in preview to select column for editing

Name: ARMA(1,1)

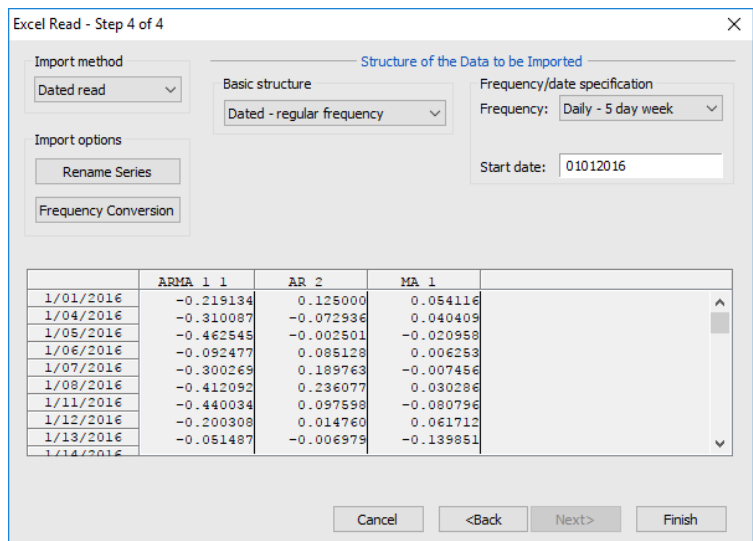
Description:

Data type: Number

ARMA (1, 1)	AR (2)	MA (1)
-0.219133627843853	0.125	0.0541161385840464
-0.310086608678827	-0.0729356379240665	0.0404085674807763
-0.462545298216212	-0.00250097427610001	-0.0209579854931428
-0.0924770482882587	0.0851278659792071	0.00625310982400556
-0.300268733206105	0.189762521269212	-0.00745627562086462
-0.412092365681692	0.236077146762422	0.0302862874989912
-0.44003420080298	0.0975975789573349	-0.0807961575632956
-0.200307619841757	0.014760393621394	0.0617120326567413

Buttons: Annulla, < Indietro, Avanti >, Fine

- You can specify if you want to change the standard representation of not available information (not relevant here, just proceed)
- We can change names to the columns
- We can also add descriptions
- Then in step 4 we need to set time frequency and starting date (which is 01/01/2016)
- Once we finish three new objects (one for each series) will appear in Eviews



Excel Read - Step 4 of 4

Import method: Dated read

Structure of the Data to be Imported

Basic structure: Dated - regular frequency

Frequency/date specification

Frequency: Daily - 5 day week

Start date: 01/01/2016

Import options: Rename Series, Frequency Conversion

	ARMA 1 1	AR 2	MA 1
1/01/2016	-0.219134	0.125000	0.054116
1/04/2016	-0.310087	-0.072936	0.040409
1/05/2016	-0.462545	-0.002501	-0.020958
1/06/2016	-0.092477	0.085128	0.006253
1/07/2016	-0.300269	0.189763	-0.007456
1/08/2016	-0.412092	0.236077	0.030286
1/11/2016	-0.440034	0.097598	-0.080796
1/12/2016	-0.200308	0.014760	0.061712
1/13/2016	-0.051487	-0.006975	-0.139851
1/14/2016			

Buttons: Cancel, < Back, Next >, Finish

# Other general things about Eviews (1/3)

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- The command window (below) can be used to give write commands to Eviews to execute

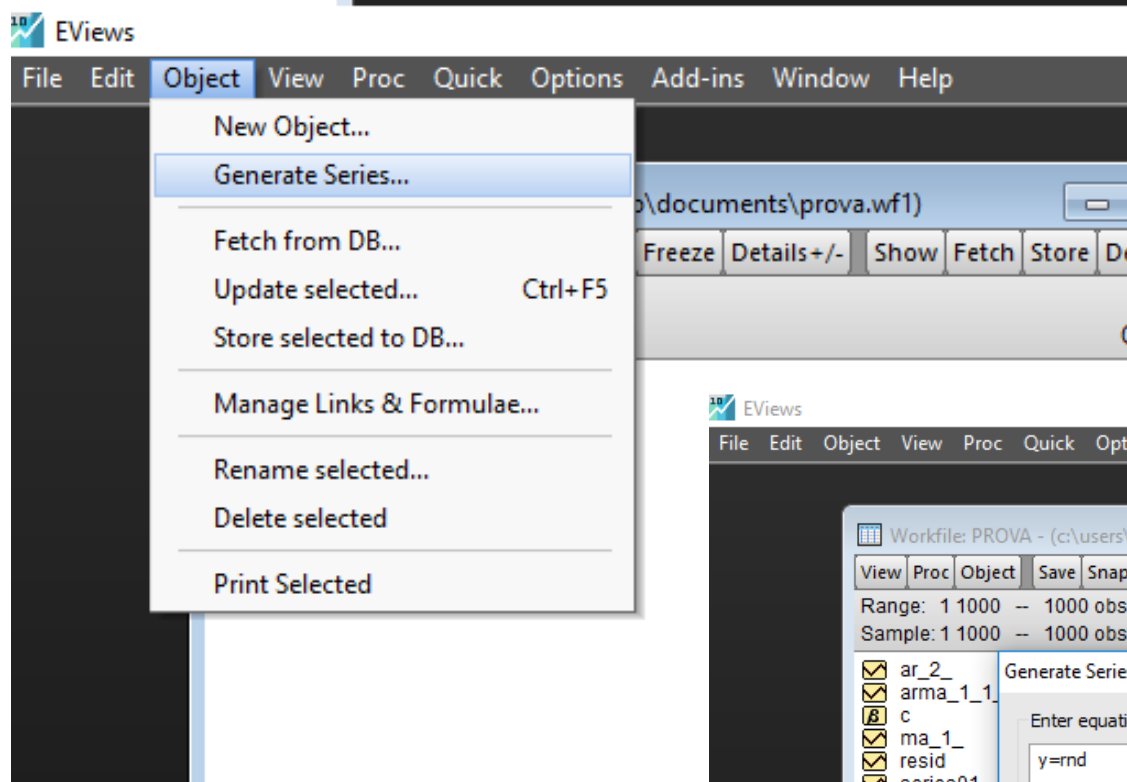


- For example, the command below creates a series of random numbers



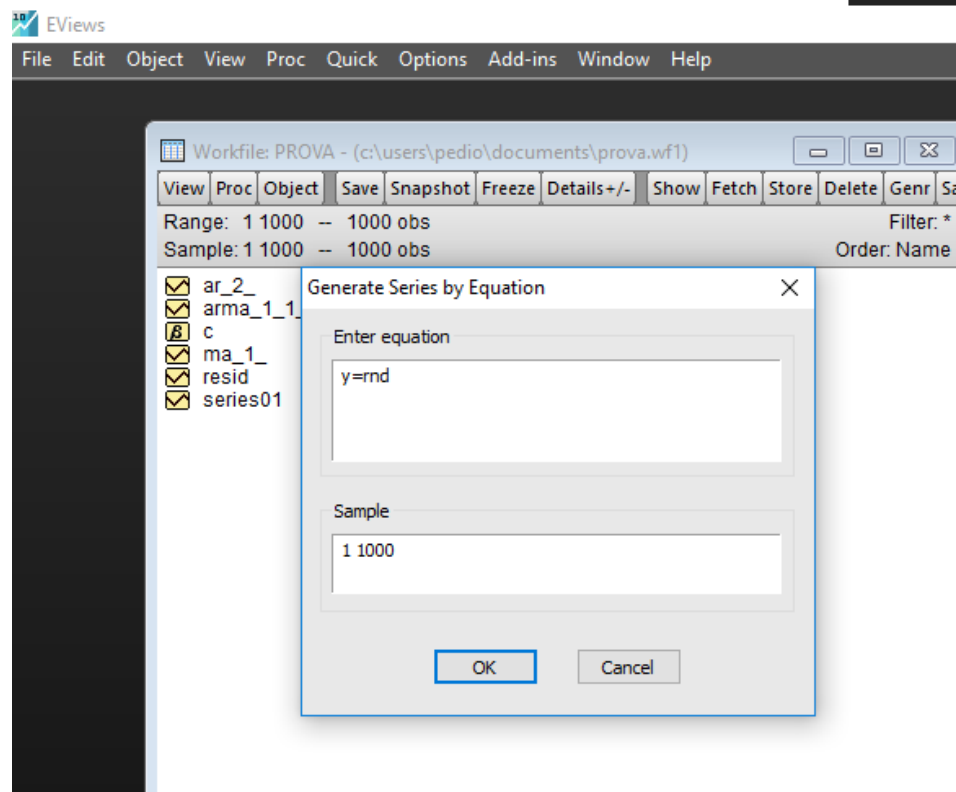
- However, the same result can be in general obtained with clicks
- For example, the next slide will show how we can generate the same series by using «object, generate series»

# Other general things about Eviews (2/3)



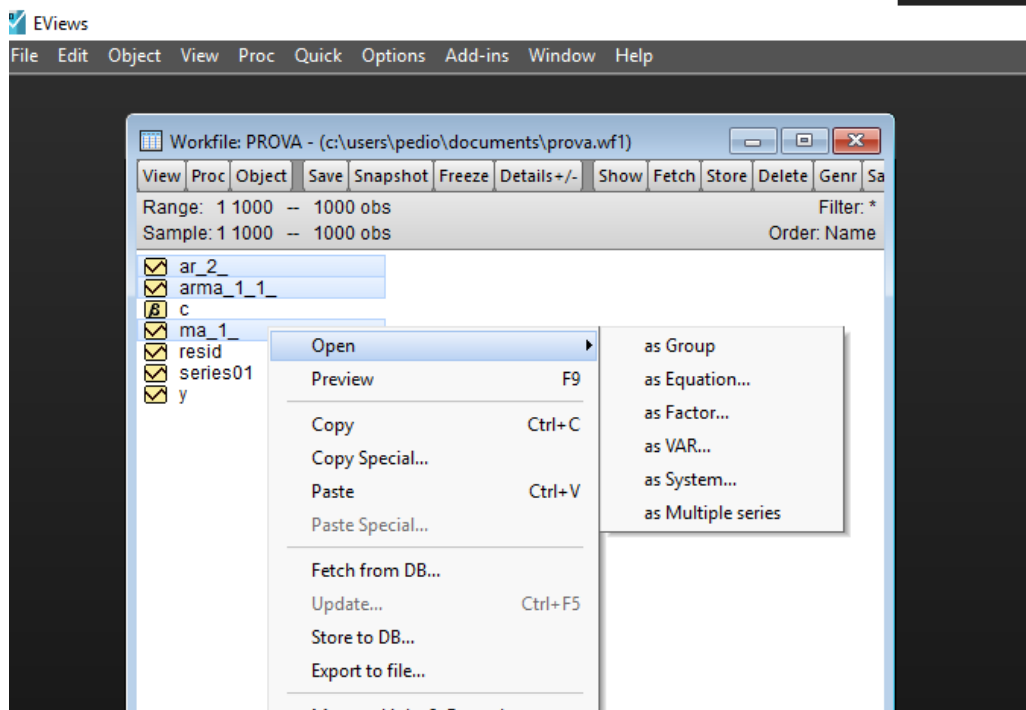
- This will give the same result as the previous command

- We will preferably use “clicks” during our lectures





# Other general things about Eviews (3/3)

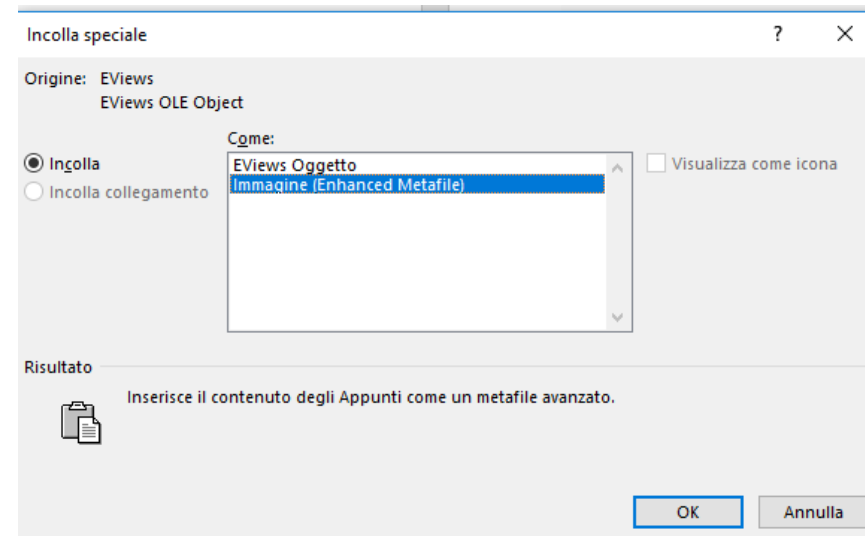
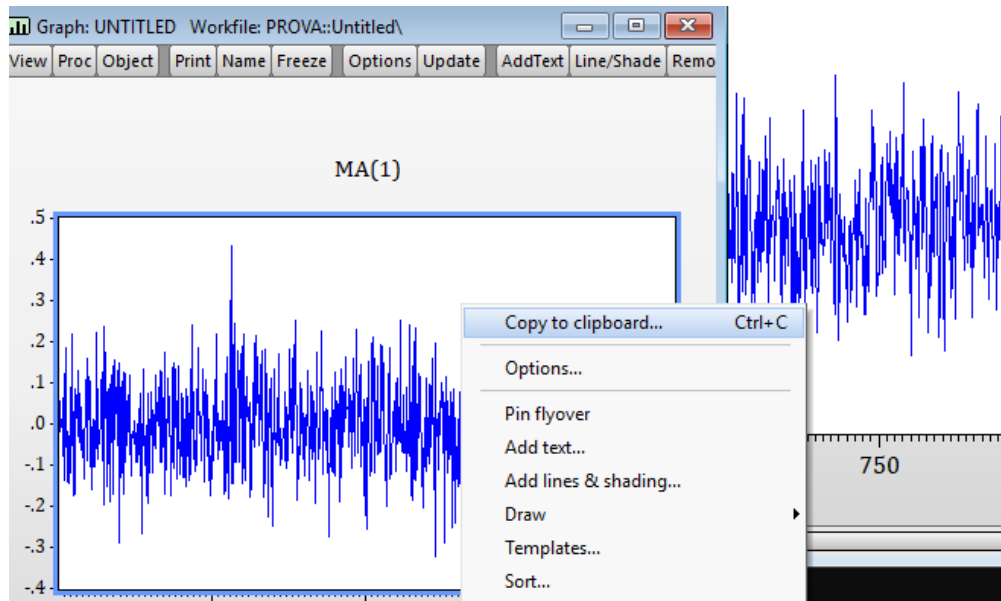


- If you select a number of different series and do right click you will have the opportunity to open the series as a number of different objects

- “Open as a group” just groups a number of series into a unique object
- Later in the course we will also open series as a VAR, as an Equation and as a System

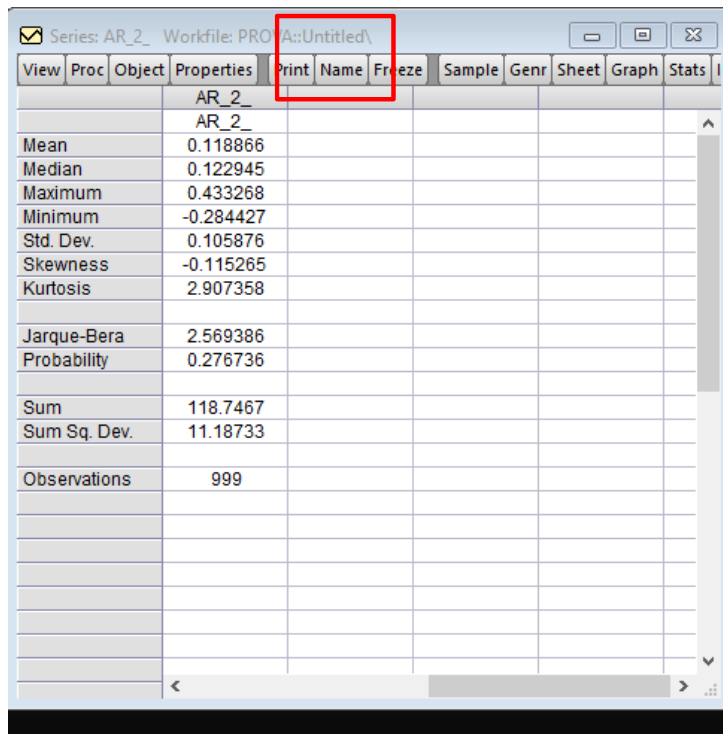
# How to save your outputs (1/2)

- In order to save the outputs that you are required to produce do the following:
  - open a word file
  - in case we ask you to save a figure that you have generated, as first step “freeze” it
  - then right click on it and select copy to clipboard; then copy it to word as an Enhanced Metafile



# How to save your outputs (2/2)

- If you are asked to save a table:
  - again freeze it
  - select the portion of interest in the “frozen” table, do right click and select copy, as displayed
  - again paste it as enhanced metafile



Series: AR\_2\_ Workfile: PROVA::Untitled\

	AR_2_
Mean	0.118866
Median	0.122945
Maximum	0.433268
Minimum	-0.284427
Std. Dev.	0.105876
Skewness	-0.115265
Kurtosis	2.907358
Jarque-Bera	2.569386
Probability	0.276736
Sum	118.7467
Sum Sq. Dev.	11.18733
Observations	999

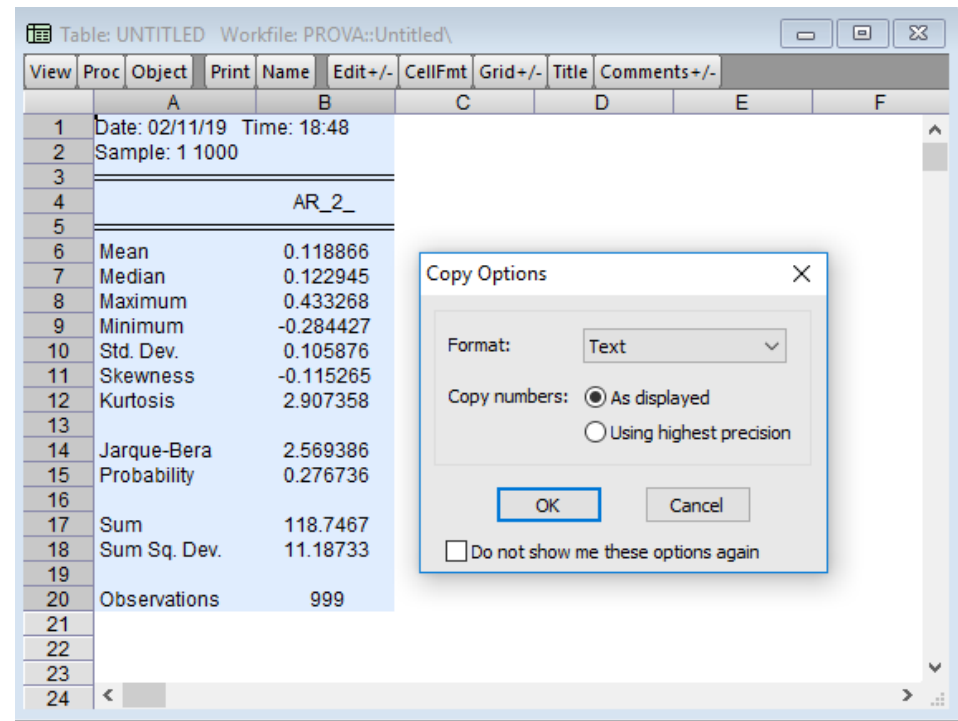


Table: UNTITLED Workfile: PROVA::Untitled\

	A	B
1	Date: 02/11/19	Time: 18:48
2	Sample: 1 1000	
3		
4		AR_2_
5		
6	Mean	0.118866
7	Median	0.122945
8	Maximum	0.433268
9	Minimum	-0.284427
10	Std. Dev.	0.105876
11	Skewness	-0.115265
12	Kurtosis	2.907358
13		
14	Jarque-Bera	2.569386
15	Probability	0.276736
16		
17	Sum	118.7467
18	Sum Sq. Dev.	11.18733
19		
20	Observations	999
21		
22		
23		
24		

Copy Options

Format: Text

Copy numbers: ☒ As displayed ☐ Using highest precision

OK Cancel

☐ Do not show me these options again