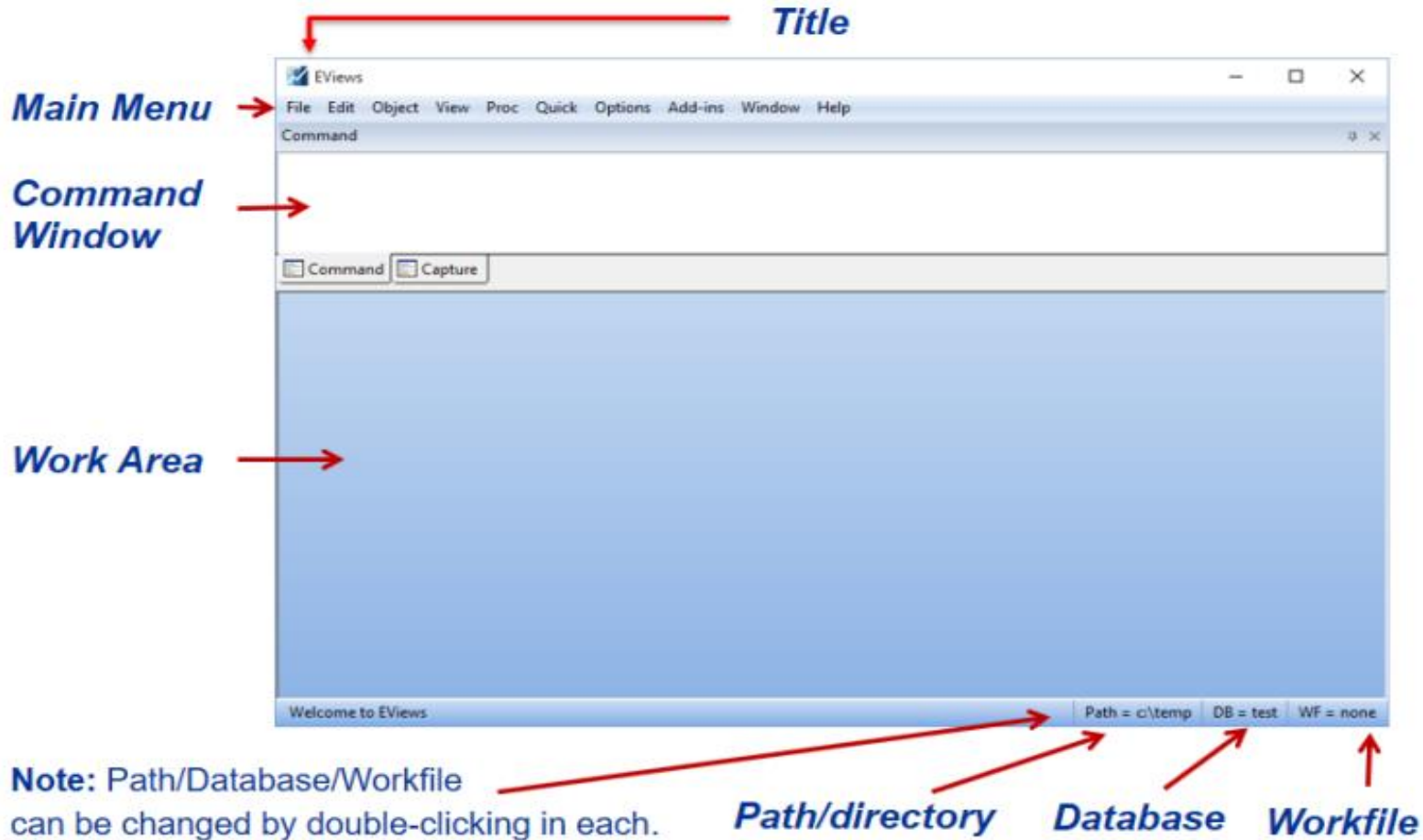


Data Analysis with Eviews

Feri Dwi Riyanto

Layout Eviews



A. Entering Data

Sample Excel Worksheet

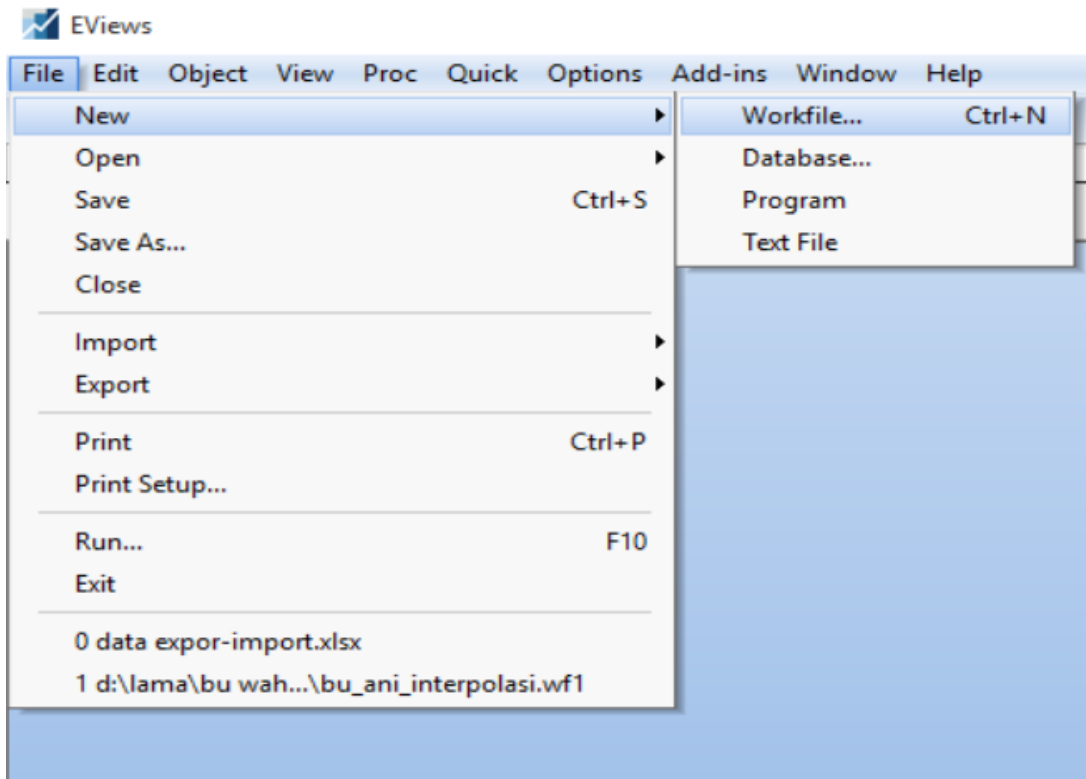
The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G	H	I	J
1	Periode	Volatile	F_Administe	Core_Infle	Inflasi	CPI				
2	2012M01	-1.48	-1.69914	-1.40972	-1.48	98.59028				
3	2012M02	0.071052	-0.63621	0.224744	0.071052	98.81185				
4	2012M03	0.030429	0.560753	0.068008	0.030429	98.87905				
5	2012M04	0.162239	0.387581	0.176343	0.162239	99.05342				
6	2012M05	0.192347	0.789131	0.117203	0.192347	99.16951				
7	2012M06	0.515308	0.418886	0.309814	0.515308	99.47675				
8	2012M07	0.392039	0.496385	0.153347	0.392039	99.6293				
9	2012M08	0.841093	1.116227	0.498465	0.841093	100.1259				
10	2012M09	0.466687	-0.50729	1.040453	0.466687	101.1677				
11	2012M10	0.207551	-0.09069	0.280318	0.207551	101.4513				
12	2012M11	0.216984	0.593204	0.294523	0.216984	101.7501				
13	2012M12	0.659384	1.768275	0.142346	0.659384	101.8949				
14	2013M01	0.655065	-1.14378	0.242246	0.655065	102.1417				
15	2013M02	0.689655	0.712205	0.225353	0.689655	102.3719				
16	2013M03	0.665638	0.462886	0.186717	0.665638	102.5631				
17	2013M04	-0.06708	0.162236	0.114382	-0.06708	102.6804				
18	2013M05	-0.11507	0.551325	0.041282	-0.11507	102.7228				

**filename : Latihan
Monthly: 2012M01 – 2018M10**

Defining the Workfile

- Start *Eviews*
- Select **File/New/Workfile**



Defining the Workfile

- Start *Views*
- Select **File/New/Workfile**
- Enter the **frequency** and the **range**

The screenshot shows the 'Workfile Create' dialog box with the following settings:

- Workfile structure type: Dated - regular frequency
- Date specification:
 - Frequency: Monthly
 - Start date: 1990:1
 - End date: 1999:12
- Names (optional):
 - WF: ubook
 - Page: (empty)

Buttons: OK, Cancel

Text: Irregular Dated and Panel workfiles may be made from Unstructured workfiles by later specifying date and/or other identifier series.

Entering Frequency and Range

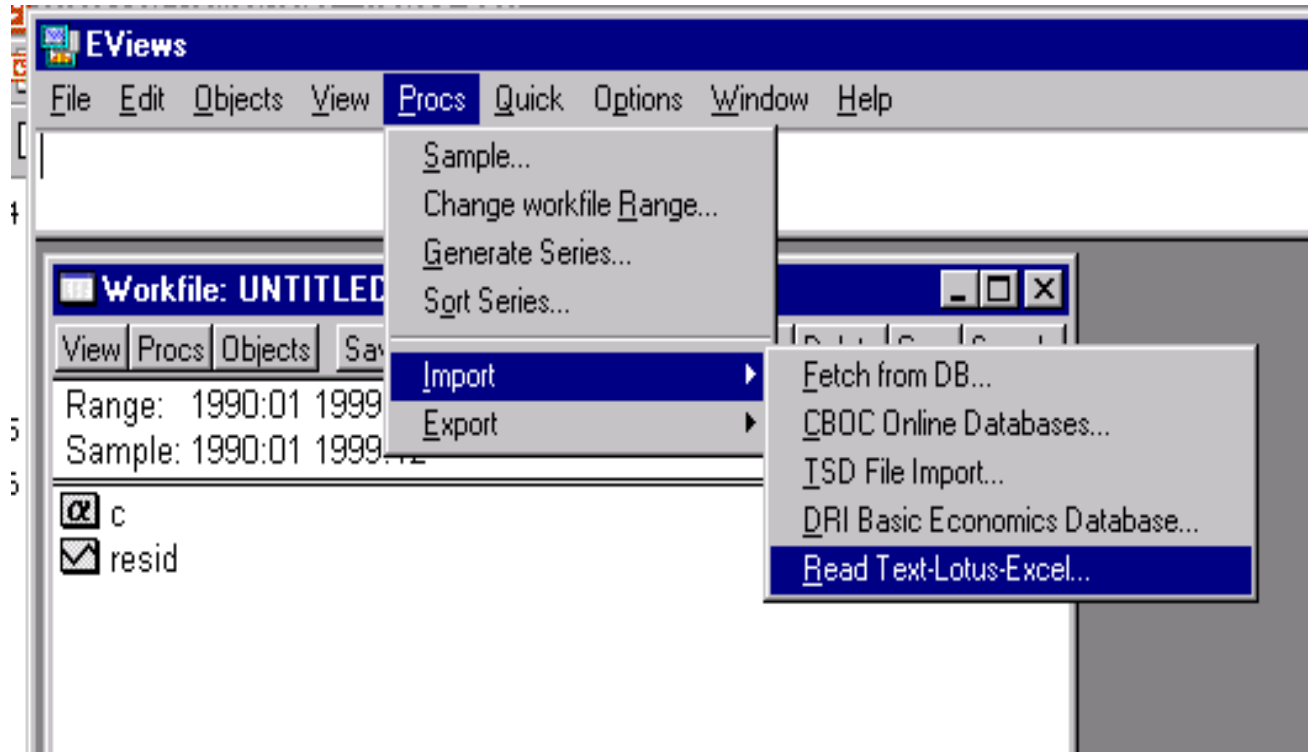
Frequency	workfile	Start date	End date
Annual	a	1990	1999
Semi-annual	s	1990:1	1999:2
Quarterly	q	1990:1	1999:4
Monthly	m	1990:1	1999:12
Weekly*	w	01/01/1990	31/12/1999
Daily[5 day]*	d	01/01/1990	31/12/1999
Daily[7 day]*	7	01/01/1990	31/12/1999
Undated	u	1	100

Information Needed to Import

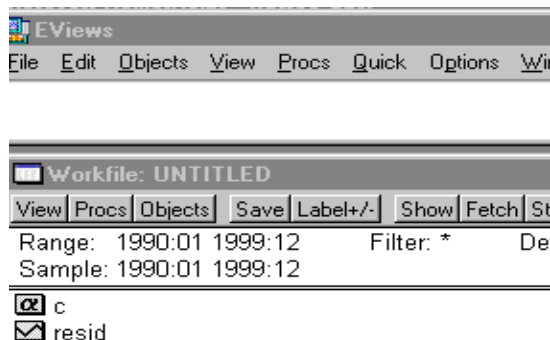
- **name of the worksheet where the data are (unnecessary if the data file is a worksheet)**
- **the number of variables**
- **where (cell) the data (numbers) begin**

Importing the Excel Worksheet

- Procs/Import/Read Text-Lotus-Excel



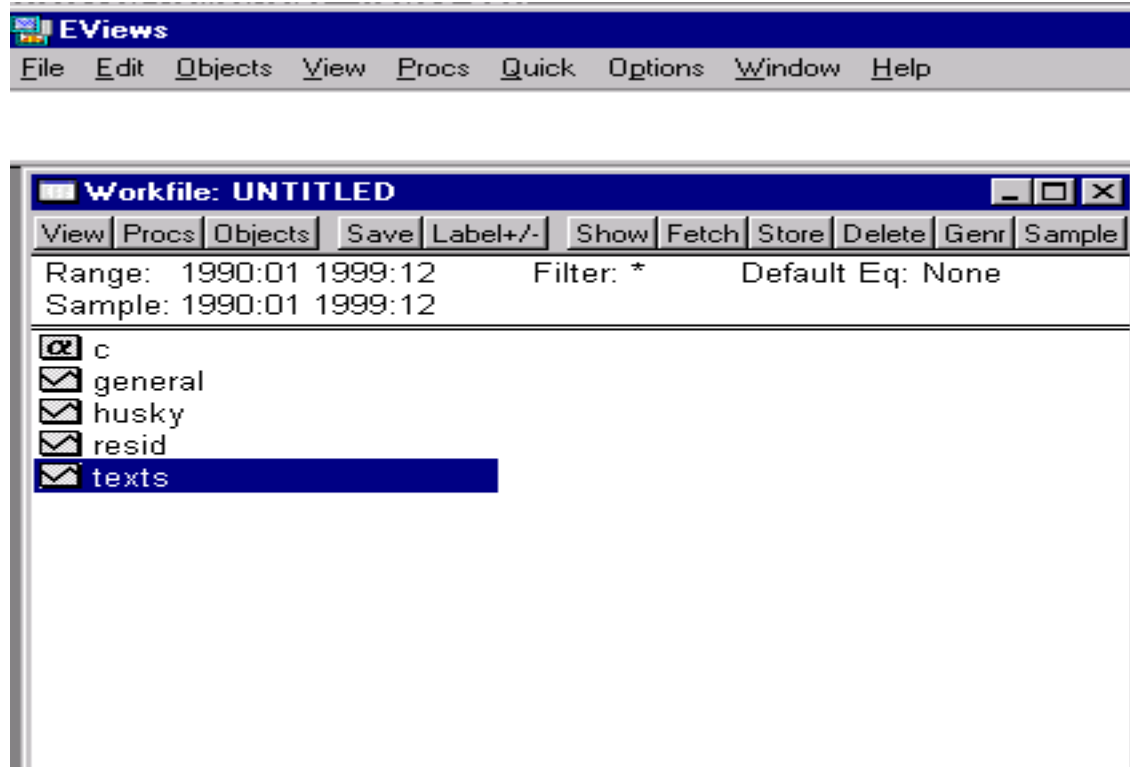
Entering the Worksheet Info



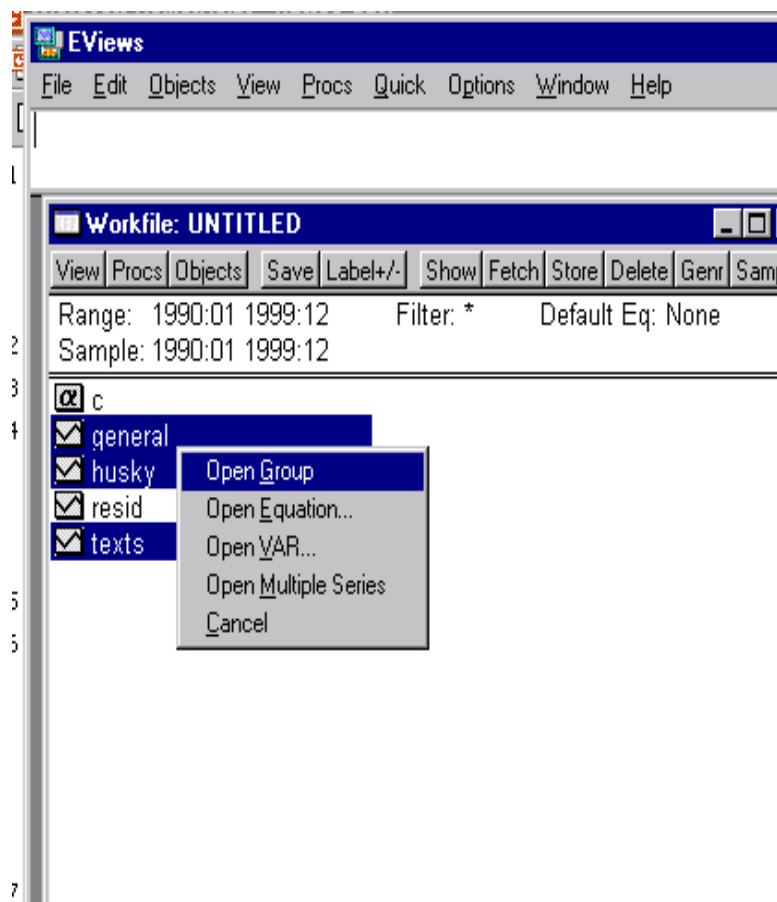
- (1) The Excel workbook must not be in use. Close it.
- (2) Must indicate the cell where the data begin.
- (3) Must indicate the number of Columns.

The screenshot shows the 'Excel Spreadsheet Import' dialog box. The 'Order of data' section has 'By Observation - series in columns' selected. The 'Upper-left data cell' is 'c2'. The 'Excel 5+ sheet name' is empty. The 'Names for series or Number of series if names in file' is '3'. The 'Sample to import' is '1990:01 1999:12'. The 'Reset sample to' options are 'Current sample', 'Workfile range', and 'To end of range'. The 'Export options' section has 'Write data labels', 'First calendar day', and 'Last calendar day' selected. The 'ASCII-Text delimiter' is 'Comma'. The 'OK' button is highlighted with a green checkmark, and the 'Cancel' button is highlighted with a red X.

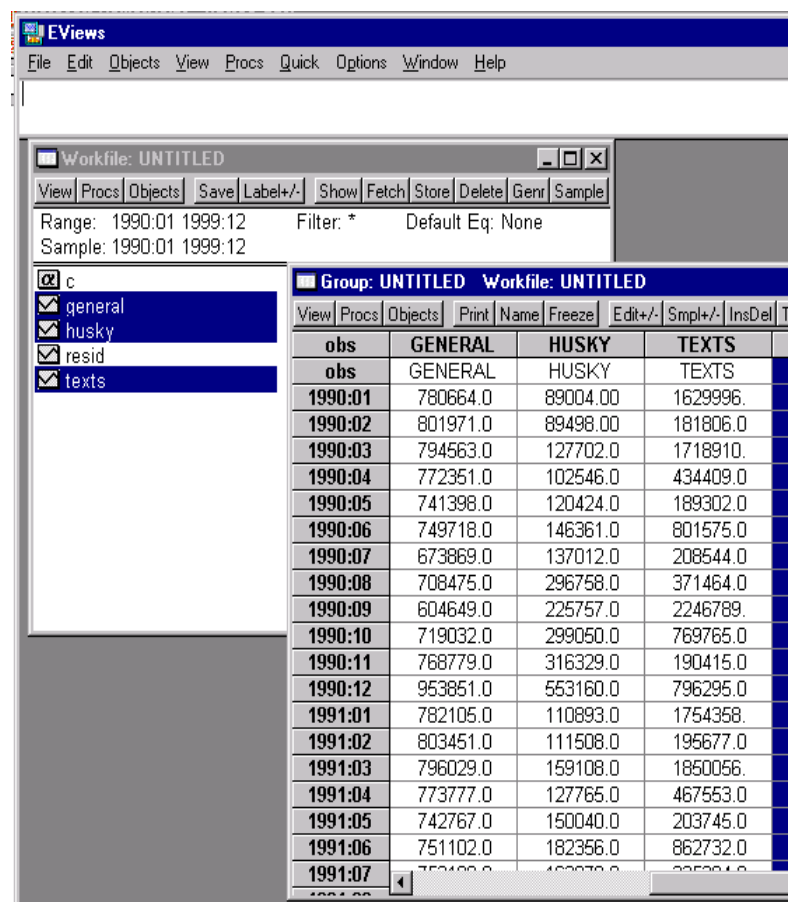
Workfile Created



Examine the Contents



1



2

Using Commands

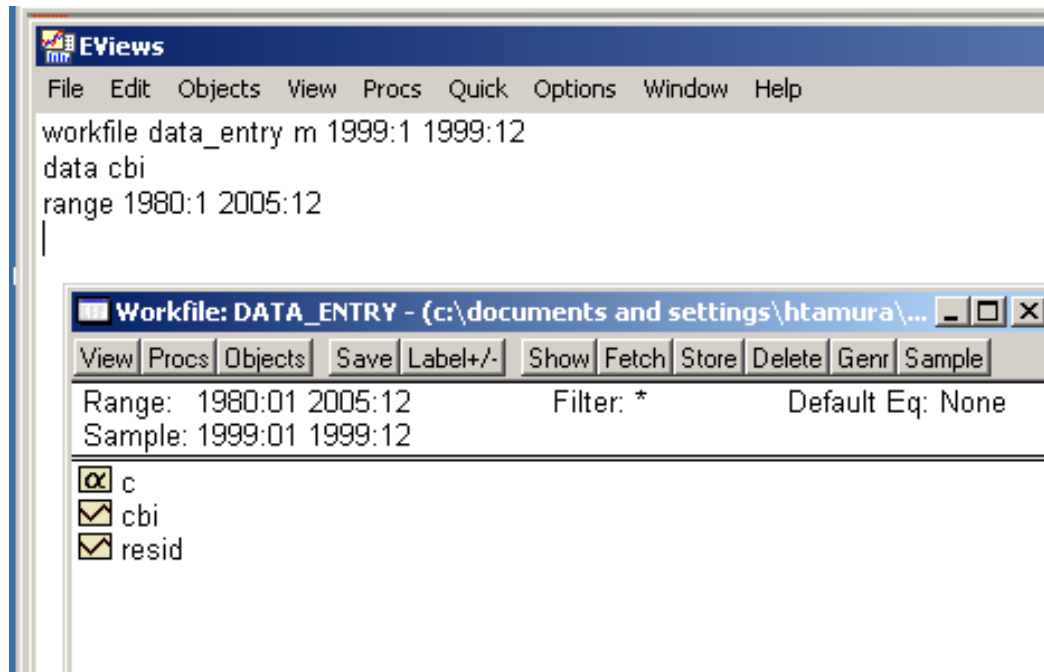
- **workfile** “name” “frequency” “range”
- **data** “variable name”

The screenshot shows the EViews software interface. The main window displays the workfile 'data_entry m 1999:1 1999:12' and the variable 'data cbi'. A secondary window titled 'Group: UNTITLED Workfile: DATA_ENTRY' shows a data entry table with columns 'obs' and 'CBI'. The first row (1999:01) is highlighted, and a callout box points to the 'CBI' cell with the text 'Start typing data'.

1999	January	814,867
1999	February	753,284
1999	March	803,476
1999	April	729,696
1999	May	751,925
1999	June	795,223
1999	July	853,493
1999	August	775,790
1999	September	773,012
1999	October	822,683
1999	November	821,079
1999	December	1,455,792

Resizing the Workfile

- range



B. Basic Data Analysis and Transformation

Select the Variable

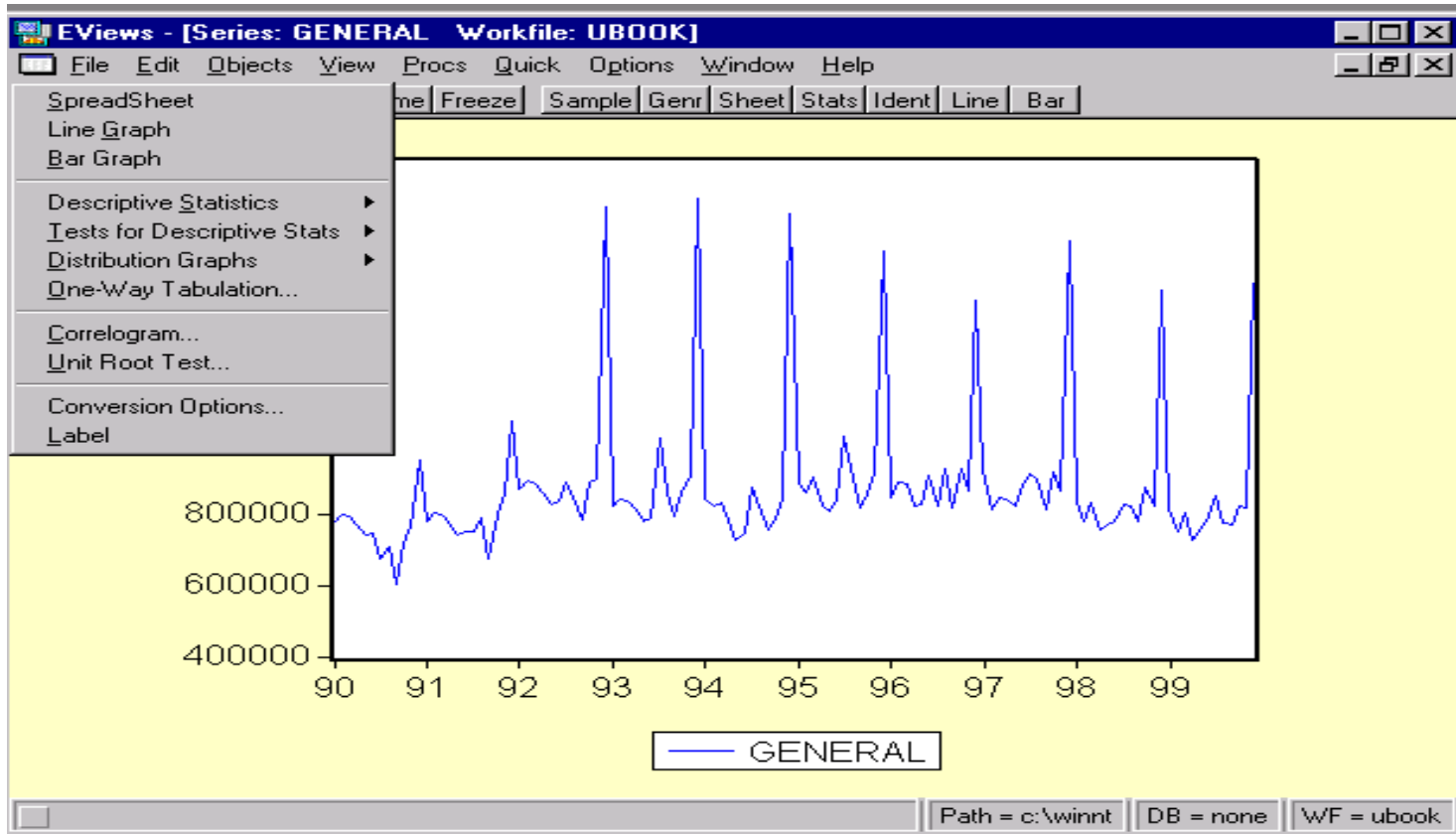
The screenshot displays the EViews software interface. The main window is titled 'EViews' and has a menu bar with 'File', 'Edit', 'Objects', 'View', 'Procs', 'Quick', 'Options', 'Window', and 'Help'. Below the menu bar is a toolbar with buttons for 'View', 'Procs', 'Objects', 'Save', 'Label+/-', 'Show', 'Fetch', 'Store', 'Delete', 'Gener', and 'Sample'. The main area shows a 'Workfile: UBOOK - (c:\mydocu~1\teaching\statis~1\qm5...)' with a range of '1990:01 1999:12' and a filter of '*'. Below this, a list of objects is shown: 'c', 'general', 'husky', 'resid', and 'texts', all of which are checked. The 'Series: GENERAL' window is open, showing a table of data for the year 1990. The table has columns for time, value, and other series. The data for 1990 is as follows:

Time	Value	Other Series	Other Series	Other Series
1990:01	780664.0			
1990:02	801971.0			
1990:03	794563.0			
1990:04	772351.0			
1990:05	741398.0			
1990:06	749718.0			
1990:07	673869.0			
1990:08	708475.0			
1990:09	604649.0			
1990:10	710000.0			

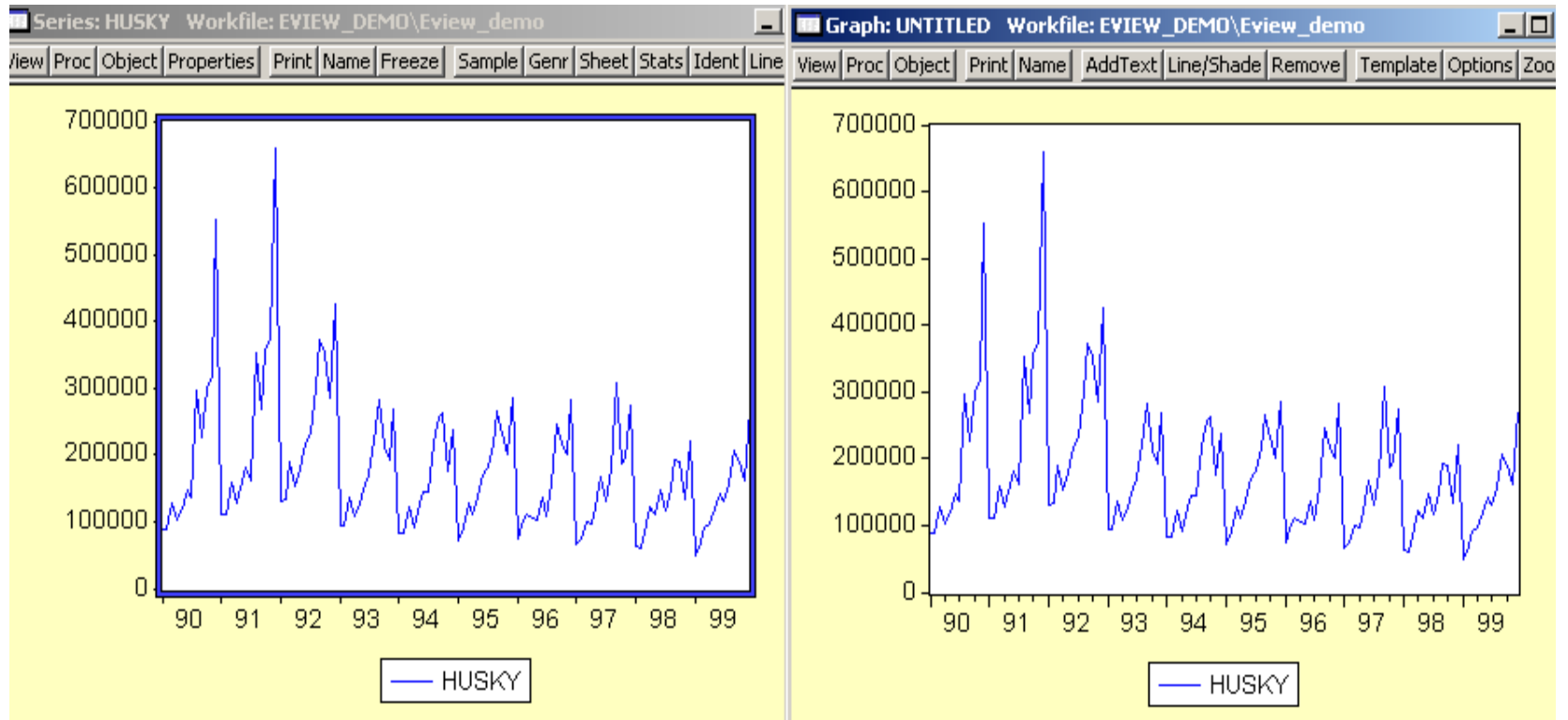
The status bar at the bottom shows 'Path = c:\winnt', 'DB = none', and 'WF = ubook'.

Timeplot

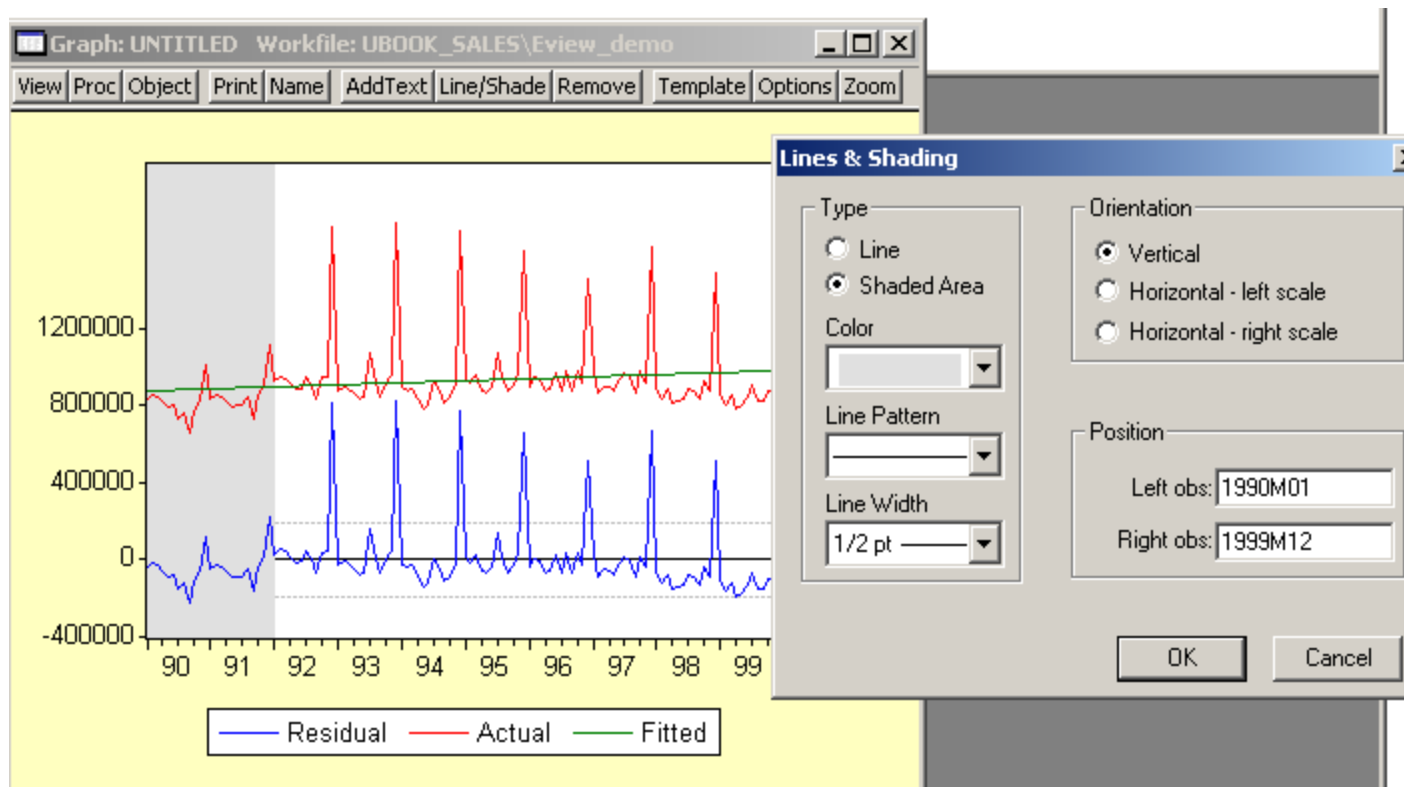
Select: View/Line Graph



Freeze

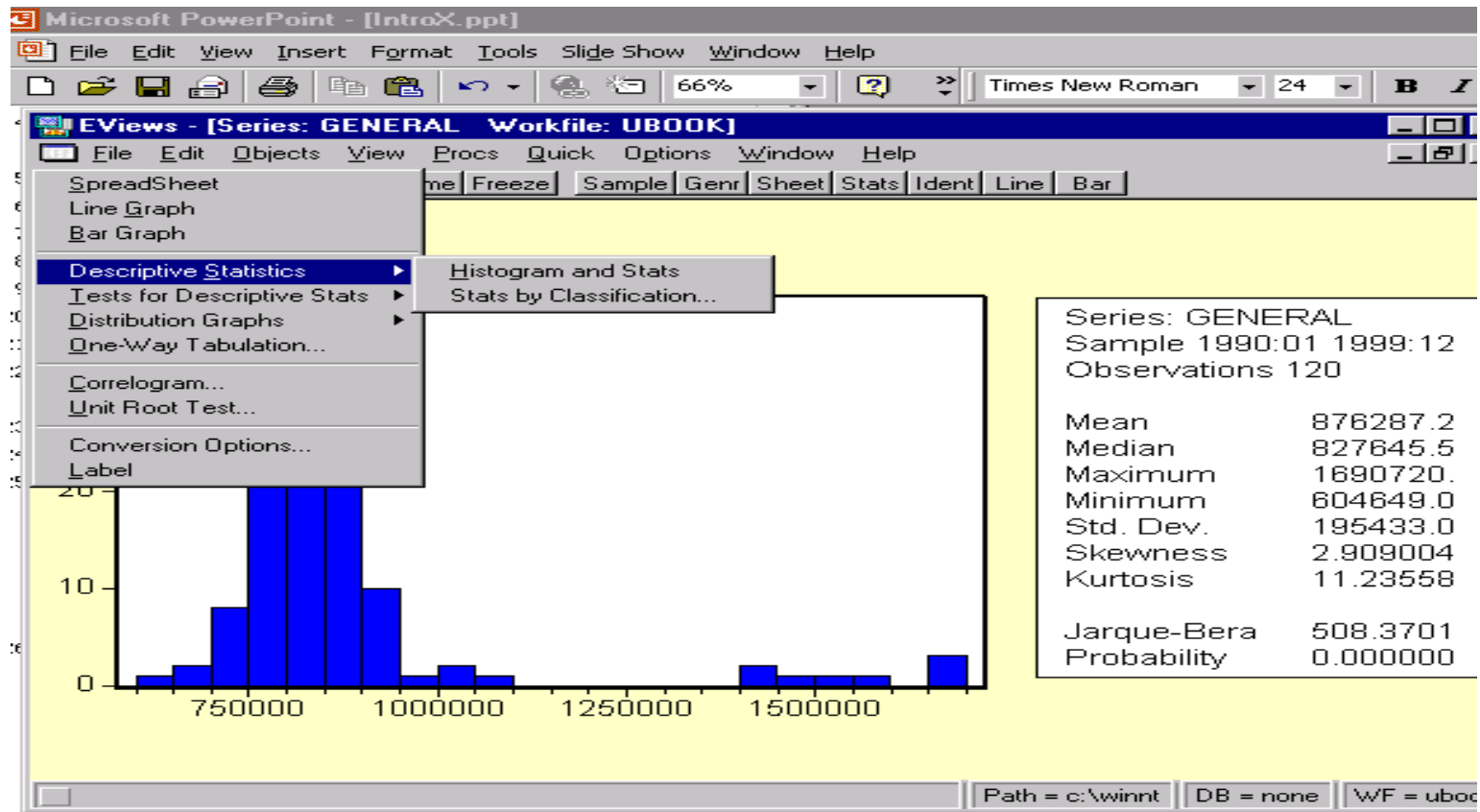


Line/Shade in Freezed Version



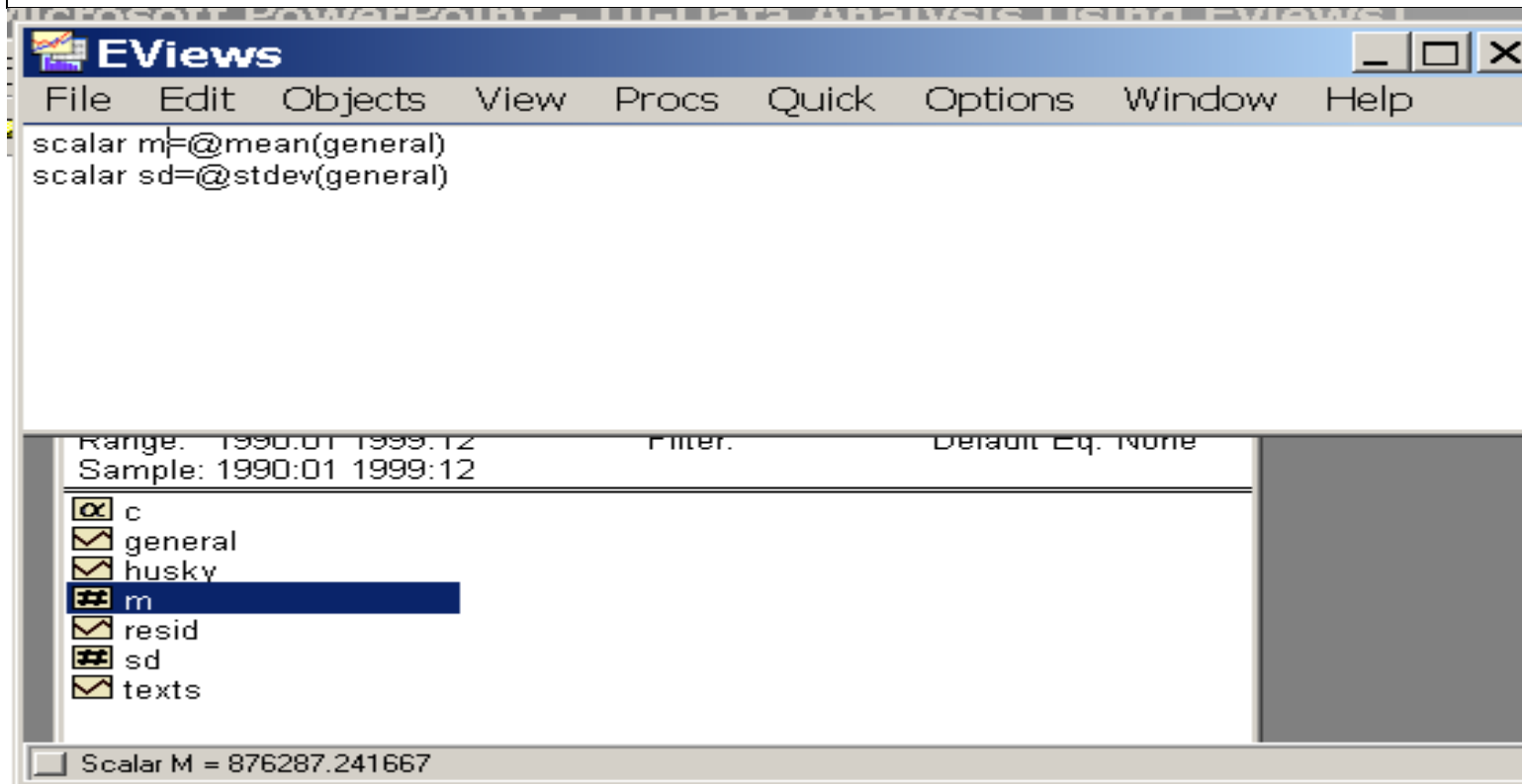
Descriptive Statistics

View/Descriptive Statistics/Histogram and Stats



Storing Descriptive Statistics

```
scalar m=@mean(series_name)  
scalar s=@stdev(series_name)
```



Creation of “Time” Variable

The screenshot shows the EViews software interface. The main window displays the command `series month=@trend(1970:12)`. A secondary window titled "Series: MONTH Workfile: EXJPUS" is open, showing a table of values for the variable "MONTH". The table has columns for the date (Year:Month) and the corresponding value. The values range from 1.000000 for 1971:01 to 10.000000 for 1971:10. The table also includes metadata such as "Last updated: 08/27/02 - 09:55" and "Modified: 1971:01 2002:07 // month=@trend(1970:12)".

MONTH	
Last updated: 08/27/02 - 09:55	
Modified: 1971:01 2002:07 // month=@trend(1970:12)	
Modified: 1971:01 2002:07 // month=@trend(1970:12)	
1971:01	1.000000
1971:02	2.000000
1971:03	3.000000
1971:04	4.000000
1971:05	5.000000
1971:06	6.000000
1971:07	7.000000
1971:08	8.000000
1971:09	9.000000
1971:10	10.000000

Linear Trend Line

series month=@trend(1970:12)
ls exjpus c month

Equation: UNTITLED Workfile: EXJPUS

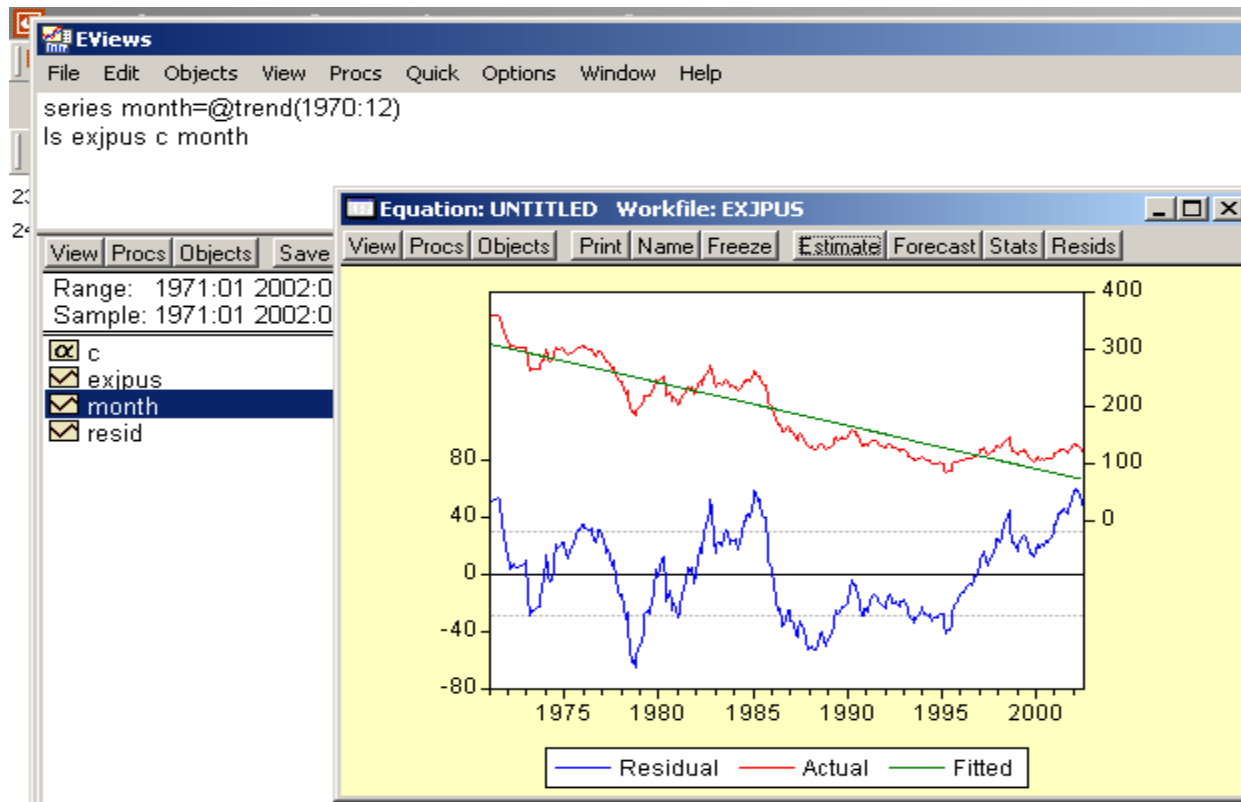
View Procs Objects Print Name Freeze Estimate Forecast Stats Resids

Dependent Variable: EXJPUS
Method: Least Squares
Date: 08/27/02 Time: 09:59
Sample: 1971:01 2002:07
Included observations: 379

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	308.7133	3.038578	101.5980	0.0000
MONTH	-0.627168	0.013859	-45.25333	0.0000

R-squared 0.844527 Mean dependent var 189.5514
Adjusted R-squared 0.844115 S.D. dependent var 74.76489
S.E. of regression 29.51888 Akaike info criterion 9.613201
Sum squared resid 328504.4 Schwarz criterion 9.633979
Log likelihood -1819.702 F-statistic 2047.864
Durbin-Watson stat 0.031852 Prob(F-statistic) 0.000000

Actual, Fitted, Residual Graph



log and diff

The screenshot shows the EViews software interface. At the top is a menu bar with options: File, Edit, Objects, View, Procs, Quick, Options, Window, Help. Below the menu bar is a command window containing the following text:

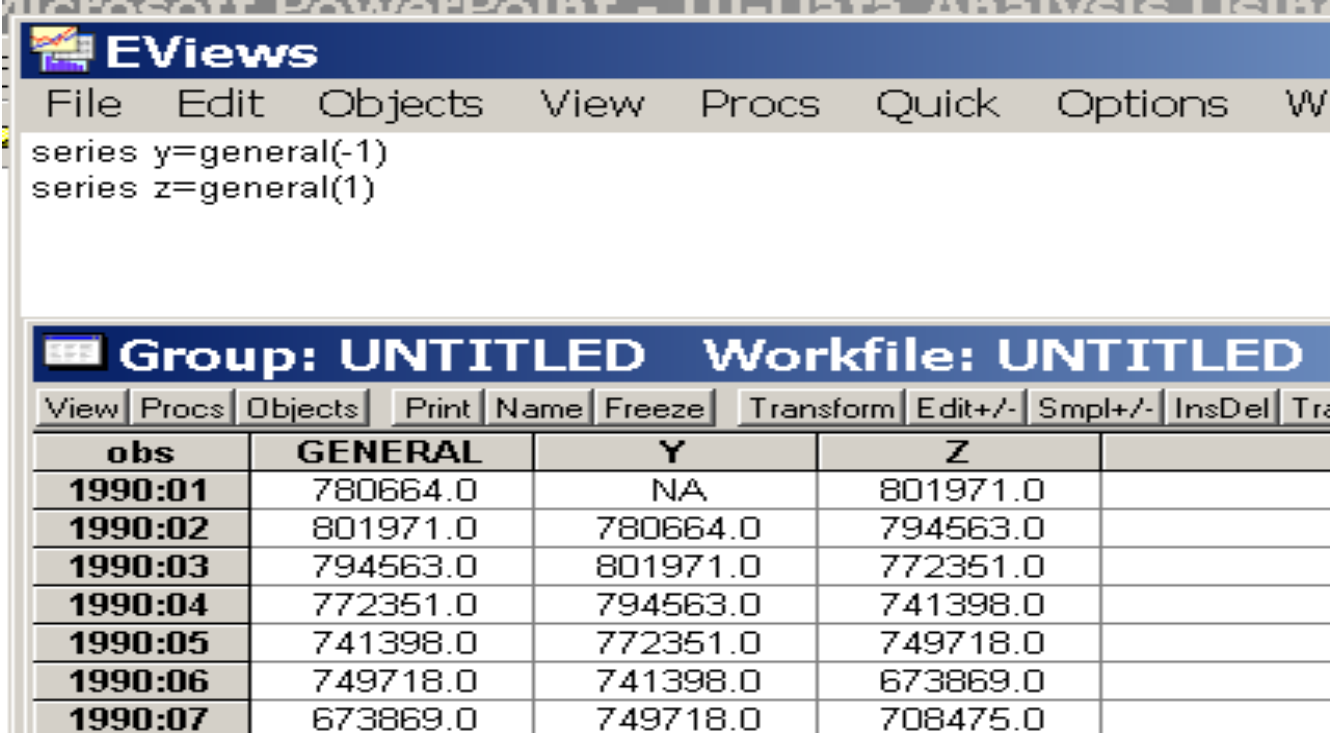
```
series log_g=log(general)
series diff_g=d(general)
series diff_g1=general-general(-1)
series diff_log=d(log_g)
```

Below the command window is a header bar that reads "Group: UNTITLED Workfile: UNTITLED". Underneath this is another menu bar with options: View, Procs, Objects, Print, Name, Freeze, Transform, Edit+/-, Smpl+/-, InsDel, Transpose, Title, Sample. The main area of the screenshot is a data table with the following columns and rows:

obs	GENERAL	LOG_G	DIFF_G	DIFF_G1	DIFF_LOG		
1990:01	780664.0	13.56790	NA	NA	NA		
1990:02	801971.0	13.59483	21307.00	21307.00	0.026928		
1990:03	794563.0	13.58555	-7408.000	-7408.000	-0.009280		
1990:04	772351.0	13.55719	-22212.00	-22212.00	-0.028353		
1990:05	741398.0	13.51629	-30953.00	-30953.00	-0.040902		
1990:06	749718.0	13.52745	8320.000	8320.000	0.011160		
1990:07	673869.0	13.42079	-75849.00	-75849.00	-0.106661		
1990:08	708475.0	13.47087	34606.00	34606.00	0.050079		
1990:09	604649.0	13.31240	-103826.0	-103826.0	-0.158467		
1990:10	719032.0	13.48566	114383.0	114383.0	0.173258		
1990:11	768779.0	13.55256	49747.00	49747.00	0.066898		
1990:12	953851.0	13.76826	185072.0	185072.0	0.215704		
1991:01	782105.0	13.56974	-171746.0	-171746.0	-0.198518		

lead and lag

“series” to create a new series



The screenshot shows the EViews software interface. The main window displays the following text:

```
series y=general(-1)
series z=general(1)
```

Below this, the workfile structure is shown as:

Group: UNTITLED Workfile: UNTITLED

The workfile contains three series: GENERAL, Y, and Z. The data is displayed in a table format for the years 1990:01 to 1990:07.

obs	GENERAL	Y	Z
1990:01	780664.0	NA	801971.0
1990:02	801971.0	780664.0	794563.0
1990:03	794563.0	801971.0	772351.0
1990:04	772351.0	794563.0	741398.0
1990:05	741398.0	772351.0	749718.0
1990:06	749718.0	741398.0	673869.0
1990:07	673869.0	749718.0	708475.0

Open Data as One Group

Sample: 1990:01 1999:12

☑ c
☑ general
☑ husky
☑ resid
☑ texts

Open Group
Open Equation...
Open VAR...
Open Multiple Series
Cancel

The Group can be
Stored as a new
object

Select Objects,
Double Click,
Select Open Group.

Range: 1990:01 1999:12
Sample: 1990:01 1999:12

☑ c
☑ general
☑ group_all
☑ husky
☑ month
☑ resid
☑ texts

Group: GROUP_ALL Workfile: BOO

View	Proc	Object	Print	Name	Freeze	Default	Sort	Transpose
		obs		GENERAL		HUSKY		TEXTS
		1990:01		780664.0		89004.00		1629996.
		1990:02		801971.0		89498.00		181806.0
		1990:03		794563.0		127702.0		1718910.
		1990:04		772351.0		102546.0		434409.0
		1990:05		741398.0		120424.0		189302.0
		1990:06		749718.0		146361.0		801575.0
		1990:07		673869.0		137012.0		208544.0
		1990:08		708475.0		296758.0		371464.0
		1990:09		604649.0		225757.0		2246789.
		1990:10		719032.0		299050.0		769765.0
		1990:11		768779.0		316329.0		190415.0
		1990:12		953851.0		553160.0		796295.0
		1991:01		782105.0		110893.0		1754358.
		1991:02		803451.0		111508.0		195677.0
		1991:03		796029.0		159108.0		1850056.
		1991:04		773777.0		127765.0		467553.0
		1991:05		742767.0		150040.0		203745.0
		1991:06		751100.0		100000.0		000000.0
		1991:07						

Monthly / New Pa
12770: Path = c:\documents and settings\htamura\my documents\2-qmeth\3-qmeth52

Timeplot – Multiple Graph

The screenshot shows the EViews software interface. The menu path is: View > Proc > Object > Multiple Graphs > Line. The data table below shows the values for 'HUSKY' and 'TEXTS' over time.

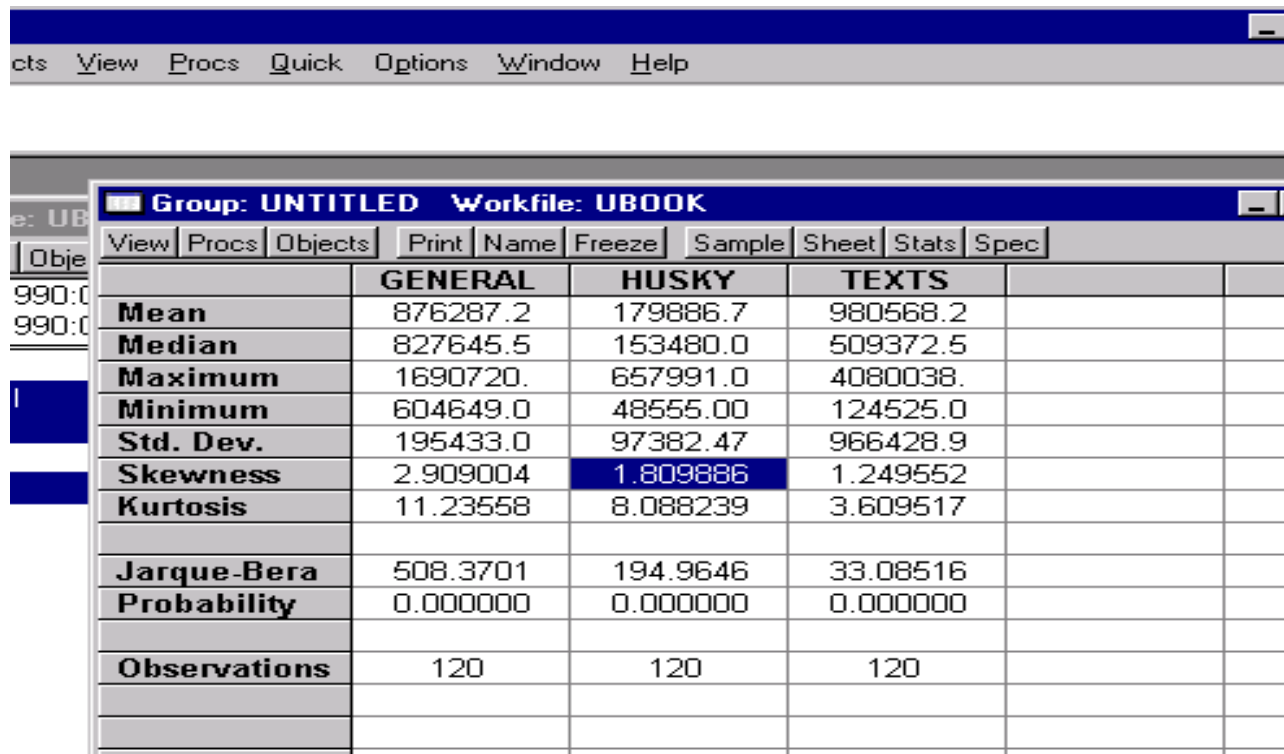
Name	Freeze	Edit+/-	Smpl+/-	InsDe	HUSKY	TEXTS
					89004.00	1629996.
					89498.00	181806.0
						1718910.
						434409.0
						189302.0
						801575.0
					208544.0	
					296758.0	371464.0
					225757.0	2246789.
					299050.0	769765.0
					316329.0	190415.0
					553160.0	796295.0
					110893.0	1754358.

Select Multiple Graphs/ Line

The screenshot shows the EViews software interface displaying three timeplot graphs for the series 'HUSKY', 'TEXTS', and 'LNT1'. Each graph shows the values of the series over time, with the y-axis ranging from 0 to 10000000 and the x-axis showing years from 1990 to 2000.

Descriptive Statistics by Variables

Select: Descriptive Stat /Individual Samples



The image shows a screenshot of a software application. At the top is a menu bar with the following items: **cts**, **V**iew, **P**rocs, **Q**uick, **O**ptions, **W**indow, **H**elp. Below the menu bar is a window titled "Group: UNTITLED Workfile: UBOOK". The window contains a table with the following data:

	GENERAL	HUSKY	TEXTS		
Mean	876287.2	179886.7	980568.2		
Median	827645.5	153480.0	509372.5		
Maximum	1690720.	657991.0	4080038.		
Minimum	604649.0	48555.00	124525.0		
Std. Dev.	195433.0	97382.47	966428.9		
Skewness	2.909004	1.809886	1.249552		
Kurtosis	11.23558	8.088239	3.609517		
Jarque-Bera Probability	508.3701	194.9646	33.08516		
Observations	120	120	120		

Scatterplot and Regression

Select month (x) and general (y) in that order; name.

The screenshot displays a SAS data table with the following data:

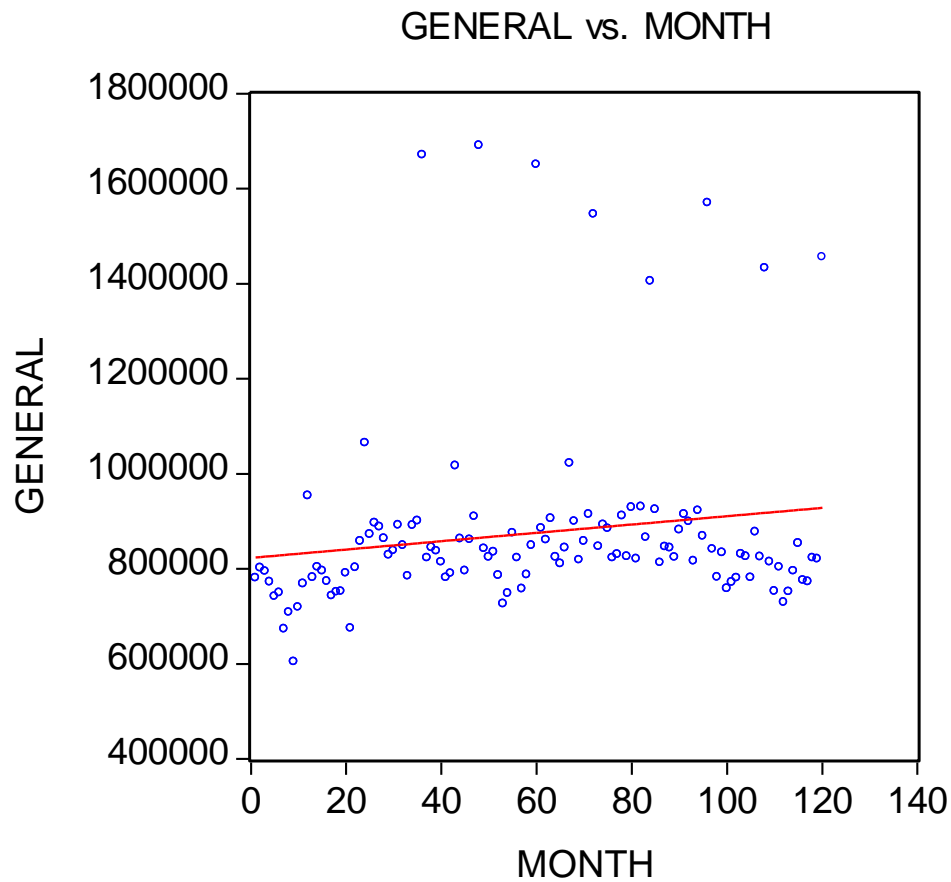
obs	MONTH	GENERAL
1990:01	1.000000	780664.0
1990:02	2.000000	801971.0
1990:03	3.000000	794563.0
1990:04	4.000000	772351.0
1990:05	5.000000	741398.0
1990:06	6.000000	749718.0
1990:07	7.000000	673869.0
1990:08	8.000000	708475.0

An 'Object Name' dialog box is overlaid on the table. It contains the following text and fields:

- Title: Object Name
- Field: Name to identify object (value: month_general)
- Text: 24 characters maximum, 16 or fewer recommended
- Field: Display name for labeling tables and graphs (optional)
- Buttons: OK, Cancel

Scatterplot and Regression

View/Graph/Scatter/Simple with Regression



Using a Section of Data

