Moving Data into Eviews

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You will find or be given data in various forms:

Text, comma delivered
Text, space delimited
Text, tab delimited
Excel
Access

These data will have to be moved into Eviews for analysis. We'll assume that the data is in Excel. Before moving data into Eviews, you may find it easier to do any data manipulation in the spreadsheet. This would include consolidating series or any necessary data transforms.[1]

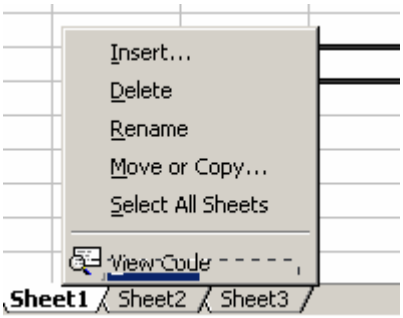
Assume income data is provided for 9 economic sectors for some area, and these data are for the years 1970 through 2001.

	1970	**1971**	**. . .**	**2000**	**2001**
wholesale	34	0	. . .	10333	10495
transport	16387	19381	. . .	289603	293954
service	37116	42331	. . .	842041	927490
retail	22522	24608	. . .	188018	205204
manufacturing	26323	31015	. . .	576017	585038
financial	10989	11981	. . .	219533	232869
government	4168	4804	. . .	392282	442617
farm	77188	73767	. . .	279265	321085
construction	11774	15043	. . .	130203	143064

Figure 1

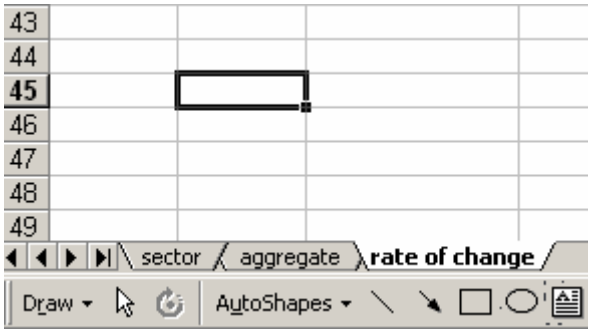
It is reasonable to assume that, at the very least, we will want an aggregate number and a rate of change number. So, before even invoking EViews we'll manipulate the data. New sheets will be created in the workbook for Aggregate, Rate of Change, as well as the original data sheet, which we will rename Sector.

To rename an Excel sheet, right-click on the name tab:



[1] Eviews has the power to manipulate data, logs, multiplication, division, etc. Eview's biggest problem is naming variables, it is quite out of date.

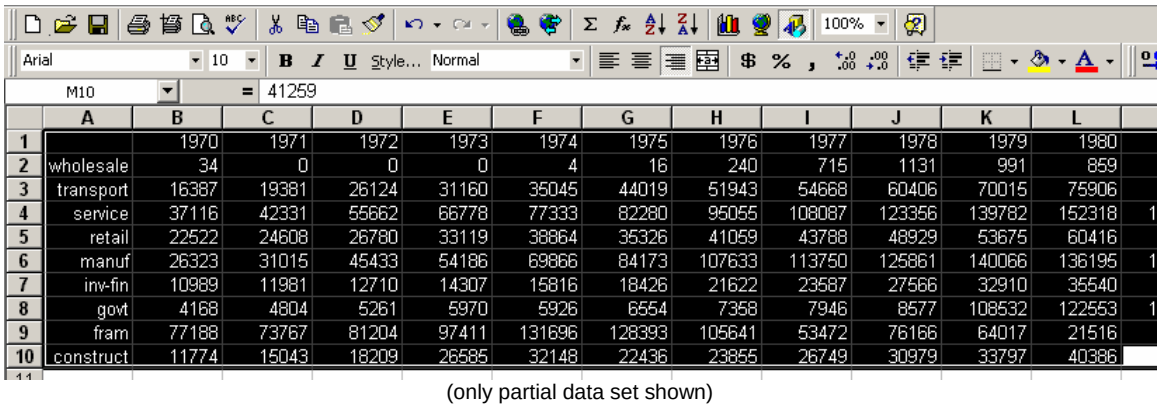
Select the RENAME option, and rename the sheet, then the next three.



Look back at Figure 1. Sectors are on the right, time series are columns. Data structures are usually organized as

Each row is a record
Each column is an attribute of the record(s)

It is more common to think of a time series as the records, and therefore the data must be transposed. Here is how:

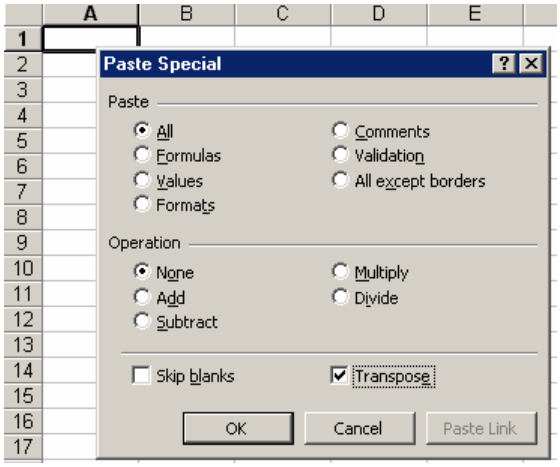


M10 = 41259

	A	B	C	D	E	F	G	H	I	J	K	L
1		1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
2	wholesale	34	0	0	0	4	16	240	715	1131	991	859
3	transport	16387	19381	26124	31160	35045	44019	51943	54668	60406	70015	75906
4	service	37116	42331	55662	66778	77333	82280	95055	108087	123356	139782	152318
5	retail	22522	24608	26780	33119	38864	35326	41059	43788	48929	53675	60416
6	manuf	26323	31015	45433	54186	69866	84173	107633	113750	125861	140066	136195
7	inv-fin	10989	11981	12710	14307	15816	18426	21622	23587	27566	32910	35540
8	govt	4168	4804	5261	5970	5926	6554	7358	7946	8577	108532	122553
9	fram	77188	73767	81204	97411	131696	128393	105641	53472	76166	64017	21516
10	construct	11774	15043	18209	26585	32148	22436	23855	26749	30979	33797	40386

(only partial data set shown)

Highlight the data series, press EDIT → COPY, then click on the Aggregate sheet. Highlight A1 in the Aggregate sheet, then press EDIT→ SPECIAL COPY, and select TRANSPOSE (you may also wish to select VALUES, otherwise formulas will not paste correctly):



Your data will paste as:

	A	B	C	D	E	F	G	H	I	J
1		wholesale	transport	service	retail	manuf	inv-fin	govt	fram	construct
2	1970	34	16387	37116	22522	26323	10989	4168	77188	11774
3	1971	0	19381	42331	24608	31015	11981	4804	73767	15043
4	1972	0	26124	55662	26780	45433	12710	5261	81204	18209
5	1973	0	31160	66778	33119	54186	14307	5970	97411	26585
27	1995	6777	219927	538773	119076	393871	104663	298249	155824	74022
28	1996	7482	217726	593180	125505	418884	125715	316513	187746	76018
29	1997	8452	226542	617984	143983	436063	153764	331482	222131	88496
30	1998	9969	243958	687546	159883	461310	184708	353657	257453	107408
31	1999	10053	261215	772994	173406	500952	203628	371518	302604	113653
32	2000	10333	289603	842041	188018	576017	219533	392282	279265	130203
33	2001	10495	293954	927490	205204	585038	232869	442617	321085	143064

Add a column that sums each time record:

=SUM(B4:J4)

I	J	K
fram	construct	tot inc
77188	11774	206501
73767	15043	222930
81204	18209	271383
97411	26585	329516

`copy and paste`

Now build the **Rate of Change** sheet. `Copy` the aggregate data into the **Rate of Change** sheet. Either below or to the right of this data set, the sector labels and the years. Now we will have to fill in the logs (natural logs, `ln()`) of the data. BUT… Note that we have 0's for data in the WHOLESALE column. The `ln(0)` doesn't exist. We'll write a formula to convert the `ln(0)`'s to `NA`'s.

Arial 10 B I U Style... Norma

B37 = =IF(B3=0,"NA",LN(B3))

	A	B	C	D	E
1		wholesale	transport	service	
2	1970	34	16387	37116	2
3	1971	0	19381	42331	2
34					
35		wholesale	transport	service	
36	1970	3.526361	9.70424362	10.5218	10.0
37	1971	NA	9.87204848	10.65327	10.1
38	1972	NA	10.1706097	10.92705	10.1

NOTE FORMULA:
`if(B3=0,"NA",LN(B3))`

Copy this formula down and to the right. Then build another table by cutting and pasting the years and the labels. This new set will be the difference between Y_t and Y_{t-1}:

B71 = =IF(OR(B37="NA",B36="NA"),"NA",B37-B36)

	A	B	C	D	E	F	G	
1		wholesale	transport	service	retail	manuf	inv-fin	
2	1970	34	16387	37116	22522	26323	10989	
3	1971	0	19381	42331	24608	31015	11981	
34								
35		wholesale	transport	service	retail	manuf	inv-fin	
36	1970	3.526361	9.70424362	10.5218	10.02225	10.1782	9.30465	8.
37	1971	NA	9.87204848	10.65327	10.11083	10.34223	9.391077	8.
38	1972	NA	10.1706097	10.92705	10.19541	10.72399	9.450144	8.
68								
69		wholesale	transport	service	retail	manuf	inv-fin	
70	1970							
71	1971	NA	0.16780	0.13147	0.08858	0.16403	0.08643	0
72	1972	NA	0.29856	0.27378	0.08458	0.38177	0.05907	0

Note that there is no series for 1970. Now, look at the `IF()` statement. Remember an Excel `IF()` statement has the form:

```
if(expression, true, false)
```

Embedded in this `IF()` statement is an `OR()` statement, which has the form

```
or(expression,expression, …)
```

If any expression within the `OR()` statement is false, then the `OR()` returns FALSE. It is used this way: if the value of the cell is "NA" or the value of the previous cell is "NA" (that would be `t` and `t-1`), then the **rate of change** cell is "NA", otherwise calculate the difference.

The entire rate-of-change table needs to be `copied` and `pasted-special` making sure that the VALUE option is checked. Then the top to data sets of this page need to be deleted. What you are left with is the transformed **rate of change** data, and nothing else. YOU DON"T HAVE TO DO THIS, but then you must remember to reset the start cell entry in EViews when you import this data sheet. EViews defaults to B2, so I make it a habit of making sure my sheets start at B2…

Save your sheet. *You may wish to write down the column labels, you'll need to type these names into EViews during the import process, <u>and you cannot have open the Excel spreadsheet while you are importing it into EViews</u>*. Eviews recognizes this situation as a file sharing error.

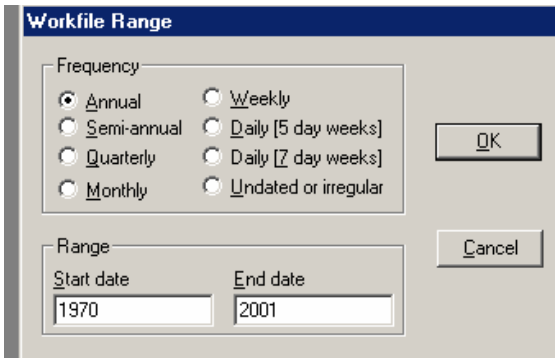
- You could save the sheet under a second name, then keep the second one open as a reference while you import the first, or
- You can copy cell names into WORD or WORDPAD making them available to paste into the IMPORT DIALOG in Eviews.
- Note that you cannot have blanks in the column names, they wont work in Eviews.
- Note: you can also save the sheet as a comma-delimited file and import the CSV.

Start EViews.

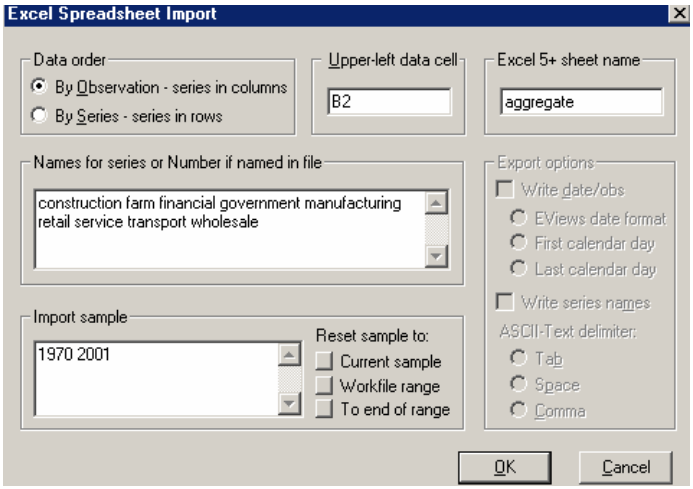
There are two steps to moving in the data:

- create a workfile,
- import the data.

To create the workfile click: FILE→ NEW → WORKFILE , then fill in appropriately for your data, in this case as:

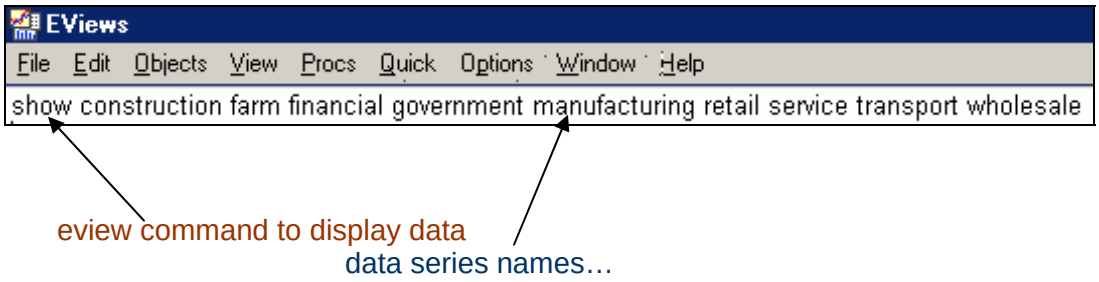


Click OK, then click PROCS → IMPORT →READ TEXT-LOTUS-EXCEL:



Note sector names for the series, the SAMPLE was defaulted, and the SHEET NAME had to be typed in. The upper left data cell defaults to B2. <u>Be sure that is where your data starts</u>. If the data starts elsewhere, enter the correct cell.

In addition to the imported series there is also “c”, a vector for the constant, and “resid”, a place holder for residuals after regressions are run. It is a good idea to ensure that the data imported correctly. You can ctrl-click each of the imported series, or better, I think, is to start using the command area.



which gives

Group: UNTITLED Workfile: UNTITLED

View | Procs | Objects | Print | Name | Freeze | Transform | Edit+/- | Smpl+/- | InsDel | Transpose | Title

obs	CONSTRUC...	FARM	FINANCIAL	GOVERNM...	MANUFAC
1970	34.00000	16387.00	37116.00	22522.00	26323.00
1971	0.000000	19381.00	42331.00	24608.00	31015.00
1972	0.000000	26124.00	55662.00	26780.00	45433.00
1973	0.000000	31160.00	66778.00	33119.00	54186.00
1974	4.000000	35045.00	77333.00	38864.00	69866.00
1975	16.00000	44019.00	82280.00	35326.00	84173.00
1976	240.0000	51943.00	95055.00	41059.00	107633.0
1977	715.0000	54668.00	108087.0	43788.00	113750.0
1978	1131.000	60406.00	123356.0	48929.00	125861.0
1979	991.0000	70015.00	139782.0	53675.00	140066.0
1980	859.0000	75906.00	152318.0	60416.00	136195.0

In fact, you can type the commands for all of this *import thang*, which can be much easier:

```
read(t=xls, s=aggregate) "sample.xls" construction . . . total
show construction farm financial . . .  transport wholesale total
```

and you can delete the series if the import went wrong with

```
delete construction farm financial government manufacturing ... total
```

Once you "show" your series, you can click VIEW from within the GROUP window and select GRAPH, as

VIEW→GRAPH→LINE

Or use these Graph commands

EViews

File Edit Objects View Procs Quick

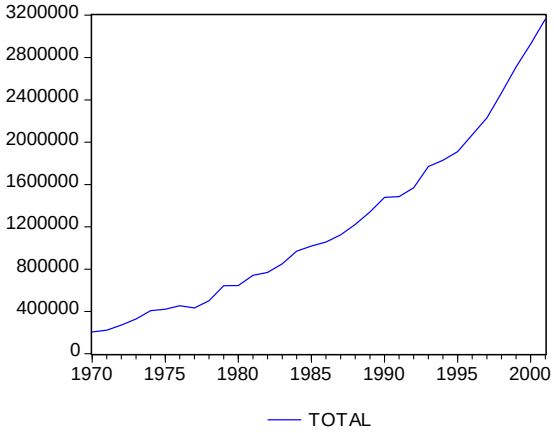
```
graph tot.line total
show tot
```

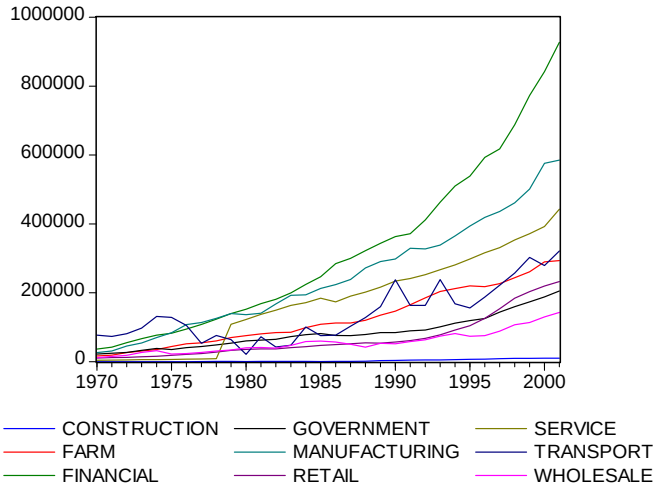
EViews

File Edit Objects View Procs Quick Options Window Help

```
graph all.line construction farm financial government manufacturing retail service transport wholesale
show all
```

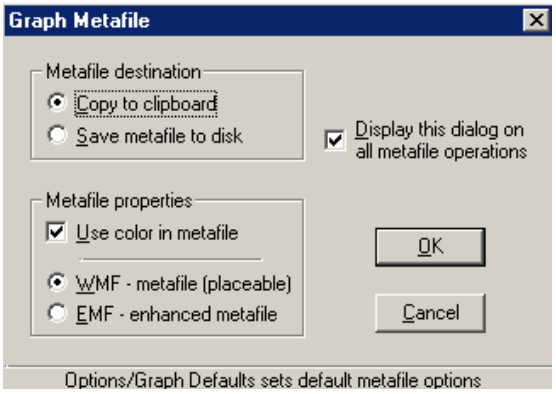
To show:





Graphs can be modified by double clicking or right-clicking on the graph.

To move a graph into your word processor, right-click on the graph and select SAVE GRAPH AS A METAFILE:



You can also CUT AND PASTE data into EViews directly from Excel. I still have trouble with this command, but you may have more luck. You must use the `data` command. Start by creating a new workfile

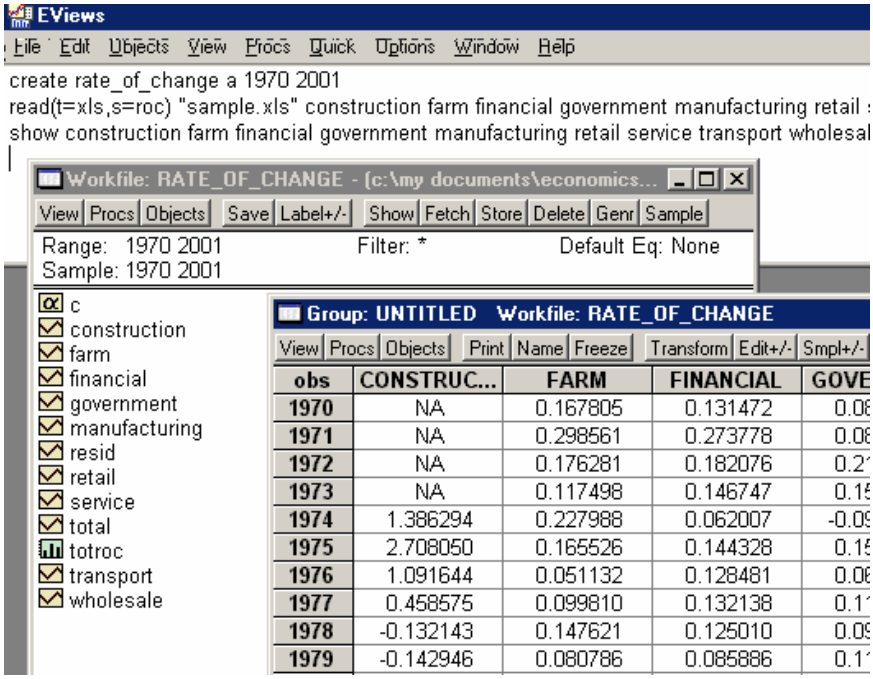
```
create rate_of_change a 1970 2001
```

Note we added a name, **rate_of_change**, a series type ("**a**" for annual), and the start and end points. Immediately enter the data command followed by the series names

```
data construction farm financial government manufacturing retail service transport wholesale total
```

Highlight, back in Excel, your data, then paste it into the group series. I suspect that the problem I've had is that the data was formatted (commas and negative numbers in parens). What I need to test unformatted data for import. My guess is that it will paste in fine. I still like the "read" command better.

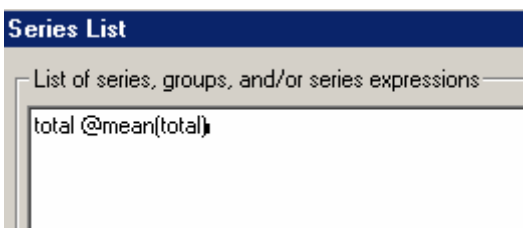
If you decided to use the "read" command, you will discover another problem: you cannot read a sheet name that has spaces in it. You will have to reopen your Excel sheet, change the sheet name so that no spaces are included, resave the sheet, close it (or exit Excel), then try the read command again.



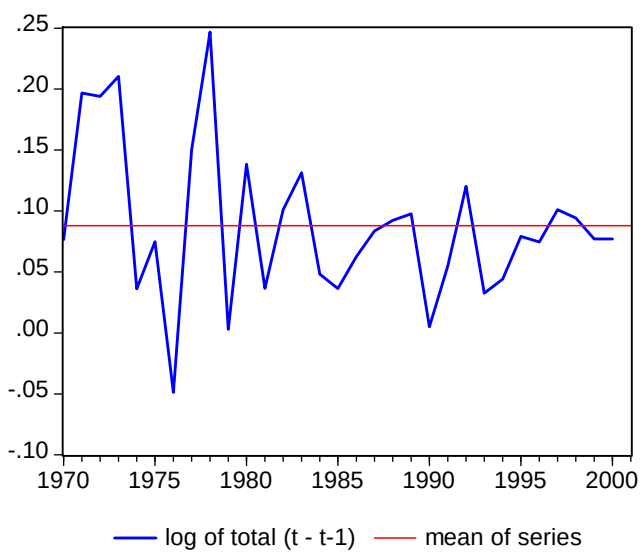
obs	CONSTRUC...	FARM	FINANCIAL	GOVE
1970	NA	0.167805	0.131472	0.08
1971	NA	0.298561	0.273778	0.08
1972	NA	0.176281	0.182076	0.2
1973	NA	0.117498	0.146747	0.15
1974	1.386294	0.227988	0.062007	-0.09
1975	2.708050	0.165526	0.144328	0.15
1976	1.091644	0.051132	0.128481	0.06
1977	0.458575	0.099810	0.132138	0.1
1978	-0.132143	0.147621	0.125010	0.09
1979	-0.142946	0.080786	0.085886	0.1

Another way to graph these series is to use the QUICK menu command. Select

QUICK → GRAPH → LINE



Note that the second series is the EViews command for the mean of a series. This dialog gives the following graph:



/* end */

Commands used:

```
create <workfile name>

read(t=[xls | dat], s=<sheet name>) "path\file" column1 column2 ...

Note:   no space between read and (
        t=xls for a spreadsheet
        t=dat for an ascii file

show series1 series2 series3 ...

delete series1 series2 series3 ...

plot series1 series2 series ...

graph <name>.type series1 series2 ...

plot series1 series2
```

Note to my friends using this “eview cliffnote.”

I’ve not done a very good job proofing this (or other notes). So if *sumptin’ don’t work*, it’s *cause* I’m lazy… I’ll get around to fixing them. Sometime.

Still, I hope this helps give you a running start, and spend more time analyzing your data and less time messin’ with eviews.

PD