

NAME

EViews EXERCISE

- 1) open the EViews program.
- 2) Create a Workfile, FILE/ NEWFILE/ UNDATED/ 10observations
- 3) OBJECT/NEWOBJECT/SERIES/
- 4) EDIT +/- Put in the shaded numbers
- 5) Rename the series as Y and X
- 6) Do a regression QUICK/ESTIMATE EQUATION
- 7)

The following is a (hypothetical) data on the weekly consumption expenditures and their income of a population of 60 families.

Table 2.1 (in the text book)
Estimation of a Desired Consumption Expenditure Function

X = Weekly Family Income, \$
Y = Weekly Family Consumption Expenditure, \$

X	----- Y -----							
80	55	60	65	70	75	NA	NA	325
100	65	70	74	80	85	88	NA	462
120	79	84	90	94	98	NA	NA	445
140	80	93	95	103	108	113	115	707
160	102	107	110	116	118	125	NA	678
180	110	115	120	130	135	140	NA	750
200	120	136	140	144	145	NA	NA	685
220	135	137	140	152	157	160	162	1043
240	137	145	155	165	175	189	NA	966
260	150	152	175	178	180	185	191	1211

1. Choose 3 different samples from the above list, each with 10 observations (families) and create a worksheet with the data you have chosen using Eviews and estimate the slope and intercept term of the equation. Repeat the same procedure for 3 more samples and fill in the table below:

	Sample 1		Sample 2		Sample 3	
observations	Y_i	X_i	Y_i	X_i	Y_i	X_i
1	55	80				
2	84	120				

3	98	120				
4	108	140				
5	115	140				
6	110	160				
7	125	160				
8	130	180				
9	140	220				
10	152	260				

2. What are the estimated coefficient values $\hat{\beta}_1$ and $\hat{\beta}_2$.

Estimates	$\hat{\beta}_1$	$\hat{\beta}_2$
Sample 1		
Sample 2		
Sample 3		
Sample 4		
Mean		

3. Compute the mean of your $\hat{\beta}_1$ and $\hat{\beta}_2$ estimates.

4. Plot your $\hat{\beta}_2$ estimates and their mean (use a different color for the mean point) on a line for $\hat{\beta}_2$.

5. What are the economic meaning of the coefficients β_1 and β_2 ?

$$Y_i = \beta_1 + \beta_2 X_i + u_i.$$

IN YOUR OWN TIME

Write the equation of the fitted regression for one of the samples. Compute the following

observations	Y_i	X_i	\hat{Y}_i	\hat{u}_i -residuals
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Summation				
averages				

1. Compute the mean value of Y_i and \hat{Y}_i and verify that they are equal.
2. Verify that $\sum \hat{u}_i$ is equal to zero.
3. Verify that the equation goes through means of the variables. Find the means and show that $\bar{Y} = \hat{\beta}_1 + \hat{\beta}_2 \bar{X}$