Assignment 1

Group 6

Abstract

Understanding coefficient estimation in basic univariate regression; performing it "by hand"

Keywords: regression, OLS, excess returns.

Consider the three following vectors of (*percent*) returns:

rf risk-free

rm market portfolio

rx asset X

for periods 1 . . . 20:

	rf	rm	rx
1	0.20	1.93	1.48
2	-0.00	1.73	1.60
3	0.11	1.29	1.03
4	0.05	1.29	1.31
5	-0.00	0.35	0.19
6	0.04	0.59	0.54
7	0.15	2.36	1.93
8	0.45	0.25	0.23
9	0.37	1.63	1.16
10	0.34	-0.27	-0.12
11	0.52	2.51	1.95
12	0.22	1.07	0.98
13	0.45	2.40	2.02
14	0.13	1.22	0.99
15	0.55	1.60	1.32
16	0.60	1.73	1.09
17	0.13	1.80	1.49
18	0.21	2.98	2.79
19	0.10	2.80	2.53
20	0.33	2.14	2.21

Your group is required to :

1. calculate *excess* returns for market (erm) and stock X (erx)
2. estimate the unknown coefficients α and β in the regression model

$$erx_t = \alpha + \beta erm_t + u_t$$

   by ordinary least squares (OLS)

3. calculate the predicted excess return of asset X if your expected excess return for the market is 2%

Please provide the results under form of a readable document (the format is free) with a reasonable amount of comments where appropriate.

The deadline for this assignment is Tuesday, October 15th.

Affiliation:

Giovanni Millo
DEAMS, University of Trieste
Piazzale Europa 1
Trieste (Italy)
E-mail: millogiovanni@gmail.com