Assignment 1

Group 2

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	0.18	5.58	2.54
2	0.08	7.11	2.82
3	0.07	5.00	1.91
4	0.31	6.43	2.49
5	-0.08	5.13	1.86
6	0.10	5.35	2.24
7	-0.11	5.63	2.19
8	0.27	5.14	2.01
9	0.06	5.52	2.25
10	0.23	5.60	2.15
11	0.53	6.62	2.88
12	0.71	6.83	2.74
13	0.66	6.13	2.25
14	0.39	5.32	2.15
15	0.56	6.68	2.48
16	0.31	5.89	2.26
17	0.33	4.65	1.89
18	0.24	5.54	2.04
19	0.07	4.87	1.87
20	0.02	6.20	2.43

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.

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