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In [3]: runfile('C:/Users/claire.loupias/Desktop/exercice-3.2.py', wdir='C:/Users/claire.loupias/Desktop')
```

OLS Regression Results

```
=====
Dep. Variable:          logged_salary    R-squared:                0.299
Model:                  OLS              Adj. R-squared:           0.291
Method:                 Least Squares    F-statistic:              37.13
Date:                   Wed, 11 Mar 2020  Prob (F-statistic):       3.73e-14
Time:                   16:11:56         Log-Likelihood:           -130.56
No. Observations:      177              AIC:                      267.1
Df Residuals:          174              BIC:                      276.6
Df Model:               2
Covariance Type:       nonrobust
=====
```

```
=====
              coef    std err          t      P>|t|      [0.025    0.975]
-----
Intercept    4.6209      0.254     18.163    0.000     4.119     5.123
logged_sales  0.1621      0.040      4.087    0.000     0.084     0.240
logged_mktval 0.1067      0.050      2.129    0.035     0.008     0.206
=====
```

```
Omnibus:                 17.241    Durbin-Watson:           2.092
Prob(Omnibus):           0.000    Jarque-Bera (JB):        63.383
Skew:                    -0.038    Prob(JB):                 1.72e-14
Kurtosis:                 5.931    Cond. No.                 70.4
=====
```

Warnings:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

OLS Regression Results

```
=====
Dep. Variable:          logged_salary    R-squared:                0.299
Model:                  OLS              Adj. R-squared:           0.287
Method:                 Least Squares    F-statistic:              24.64
Date:                   Wed, 11 Mar 2020  Prob (F-statistic):       2.53e-13
Time:                   16:11:56         Log-Likelihood:           -130.53
No. Observations:      177              AIC:                      269.1
Df Residuals:          173              BIC:                      281.8
Df Model:               3
Covariance Type:       nonrobust
=====
```

```
=====
              coef    std err          t      P>|t|      [0.025    0.975]
-----
Intercept    4.6869      0.380     12.343    0.000     3.937     5.436
logged_sales  0.1614      0.040      4.043    0.000     0.083     0.240
logged_mktval 0.0975      0.064      1.531    0.128    -0.028     0.223
profits      3.566e-05    0.000      0.235    0.815    -0.000     0.000
=====
```

```
Omnibus:                 17.054    Durbin-Watson:           2.097
Prob(Omnibus):           0.000    Jarque-Bera (JB):        62.074
Skew:                    -0.029    Prob(JB):                 3.32e-14
Kurtosis:                 5.901    Cond. No.                 4.52e+03
=====
```

Warnings:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

[2] The condition number is large, 4.52e+03. This might indicate that there are strong multicollinearity or other numerical problems.

OLS Regression Results

```

=====
Dep. Variable:          logged_salary    R-squared:                0.318
Model:                  OLS             Adj. R-squared:           0.302
Method:                 Least Squares   F-statistic:              20.08
Date:                   Wed, 11 Mar 2020 Prob (F-statistic):       1.39e-13
Time:                   16:11:56        Log-Likelihood:           -128.10
No. Observations:      177             AIC:                      266.2
Df Residuals:          172             BIC:                      282.1
Df Model:               4
Covariance Type:       nonrobust
=====

```

	coef	std err	t	P> t	[0.025	0.975]
Intercept	4.5578	0.380	11.986	0.000	3.807	5.308
logged_sales	0.1622	0.039	4.109	0.000	0.084	0.240
logged_mktval	0.1018	0.063	1.614	0.108	-0.023	0.226
profits	2.905e-05	0.000	0.193	0.847	-0.000	0.000
ceoten	0.0117	0.005	2.187	0.030	0.001	0.022

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=====
Omnibus:                25.236    Durbin-Watson:            2.047
Prob(Omnibus):          0.000    Jarque-Bera (JB):        121.011
Skew:                   -0.281    Prob(JB):                 5.28e-27
Kurtosis:                7.012    Cond. No.                 4.57e+03
=====

```

Warnings:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

[2] The condition number is large, 4.57e+03. This might indicate that there are strong multicollinearity or other numerical problems.

La corrélation entre log(mktval) et profits est : 0.7768975970597893

In [4]: