Problem 1

```
Delta: 0.17610395748116076, Gamma: 0.018996652446586274, Vega: 11.752921950979156, Th
eta: -20.573139039257576, Rho: 2.28468083670532
Problem 1 Successfully
```

Dividends and Option Pricing

Call Options: A call option gives the holder the right to buy the underlying asset. Dividends generally decrease the price of the underlying stock when paid, since the value is transferred from the company to shareholders as a dividend payment. As a result, higher dividends make call options less valuable because the underlying stock's price is expected to drop by the dividend amount on the ex-dividend date.

Put Options: A put option gives the holder the right to sell the underlying asset. Since dividends reduce the price of the stock, put options become more valuable as higher dividends result in a lower underlying price, making it more likely for the put option to be in-the-money or increase in value.

Impact on Greeks

Delta: For a call option, Delta becomes lower as the expected dividend increases, indicating that the option's price becomes less sensitive to an increase in the underlying stock price. Conversely, for a put option, Delta tends to increase as dividends increase because a lower underlying price (due to dividends) makes the put more valuable.

Theta: Theta, which measures the time decay of an option, is generally impacted by dividends since options lose value as the underlying price changes. For calls, Theta will be more negative when dividends are expected, as the stock price is expected to fall by the dividend amount. For puts, Theta may become less negative or even positive because the expected decline in the underlying price benefits the put holder.

Rho: Rho is affected as well, but the impact is more pronounced on Theta and Delta when considering dividend payments. The dividend impact on interest rate sensitivity is indirect.

Problem 2

```
VaR 95%: 10.507528455569332, ES 95%: 12.939719618422451
Problem 2 Successfully
```

Compare

I can use Python to compare the differences between this week's and last week's results. Below is an example framework for comparing these differences

```python
import pandas as pd
# Load last week's data
last_week_data = pd.read_csv("problem2.csv")
# Load this week's results, such as VaR and ES
this_week_data = {
    'VaR_95': var_95,
    'ES_95': es_95
}
# Compare VaR and ES results
print("Comparing VaR and ES between this week and last week:")
print(f"Last week VaR (95%): {last_week_data['VaR_95'].iloc[0]}")
print(f"This week VaR (95%): {this_week_data['VaR_95']}")
```

```
print(f"Difference in VaR (95%): {this_week_data['VaR_95'] - last_week_data['VaR_95'].iloc[0]}")
print(f"Last week ES (95%): {last_week_data['ES_95'].iloc[0]}")
print(f"This week ES (95%): {this_week_data['ES_95']}")
print(f"Difference in ES (95%): {this_week_data['ES_95'] - last_week_data['ES_95'].iloc[0]}")
```

Problem 3

`Problem 3 Successfully, read  Fama_French_Results.txt`

Steps to Find the Super-Efficient Portfolio

Calculate Expected Returns and Covariance Matrix

Calculate the expected returns of each stock based on historical data.

Calculate the covariance matrix of the returns to understand how each stock's return varies relative to others.

Formulate the Objective Function

The objective is to maximize the Sharpe ratio of the portfolio. The Sharpe ratio is given by:

$$\text{Sharpe Ratio} = \frac{E(R_p) - R_f}{\sigma_p}$$

E(Rp) is the expected return of the portfolio.

Rf is the risk-free rate (0.05).

σp is the standard deviation of the portfolio return.

Optimize the Portfolio Weights

You need to find the weights www that maximize the Sharpe ratio. This is a constrained optimization problem where the sum of all weights is equal to 1 (i.e., fully invested portfolio). This can be implemented using Python, using libraries like SciPy for optimization.

Model for AAPL

OLS Regression Results
==

Dep. Variable:	y	R-squared:	0.005
Model:	OLS	Adj. R-squared:	-0.010
Method:	Least Squares	F-statistic:	0.3421
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.849
Time:	03:37:49	Log-Likelihood:	-1157.7
No. Observations:	266	AIC:	2325.
Df Residuals:	261	BIC:	2343.
Df Model:	4		

Covariance Type: nonrobust
==
                    coef   std err   t   P>|t| [0.025   0.975]
----
const   160.6735   1.163   138.167   0.000   158.384   162.963
x1   1.5243   1.443   1.056   0.292   -1.318   4.366
x2   -0.3273   1.398   -0.234   0.815   -3.079   2.425
x3   -0.4395   1.311   -0.335   0.738   -3.021   2.142
x4   1.0609   1.688   0.628   0.530   -2.263   4.385
==
Omnibus: 79.400   Durbin-Watson: 0.019
Prob(Omnibus):   0.000   Jarque-Bera (JB):   14.872
Skew: 0.185   Prob(JB):   0.000590
Kurtosis: 1.902   Cond. No.   2.60
==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for ABBV
                          OLS Regression Results
==
Dep. Variable: y   R-squared: 0.012
Model: OLS   Adj. R-squared: -0.003
Method: Least Squares   F-statistic: 0.7815
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.538
Time: 03:37:49   Log-Likelihood: -942.37
No. Observations: 266   AIC: 1895.
Df Residuals: 261   BIC: 1913.
Df Model: 4
Covariance Type: nonrobust
==
                    coef   std err   t   P>|t| [0.025   0.975]
----
const   146.4014   0.518   282.819   0.000   145.382   147.421
x1   -0.0793   0.642   -0.123   0.902   -1.344   1.186
x2   -0.6049   0.622   -0.972   0.332   -1.830   0.620
x3   -0.8040   0.584   -1.378   0.169   -1.953   0.345
x4   0.0142   0.751   0.019   0.985   -1.465   1.494
==

```
==================
Omnibus:                        54.828    Durbin-Watson:                  0.078
Prob(Omnibus):                   0.000    Jarque-Bera (JB):              11.792
Skew:                           -0.048    Prob(JB):                    0.00275
Kurtosis:                        1.973    Cond. No.                       2.60
============================================================
==================
```

Notes:

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

Model for ABT

OLS Regression Results

```
============================================================
==================
Dep. Variable:                       y    R-squared:                      0.030
Model:                             OLS    Adj. R-squared:                 0.016
Method:                  Least Squares    F-statistic:                    2.048
Date:                 Sat, 09 Nov 2024    Prob (F-statistic):            0.0881
Time:                         03:37:49    Log-Likelihood:               -786.73
No. Observations:                  266    AIC:                            1583.
Df Residuals:                      261    BIC:                            1601.
Df Model:                            4
Covariance Type:             nonrobust
============================================================
==================
                 coef     std err          t      P>|t|      [0.025      0.975]
--------------------------------------------------------------------------------
const         104.2447     0.288      361.517     0.000     103.677     104.813
x1              0.0675     0.358        0.189     0.850      -0.637       0.772
x2              0.4871     0.347        1.406     0.161      -0.195       1.169
x3             -0.0954     0.325       -0.293     0.769      -0.735       0.545
x4             -0.3636     0.419       -0.869     0.386      -1.188       0.461
============================================================
==================
Omnibus:                        19.599    Durbin-Watson:                  0.120
Prob(Omnibus):                   0.000    Jarque-Bera (JB):               7.313
Skew:                           -0.064    Prob(JB):                      0.0258
Kurtosis:                        2.198    Cond. No.                       2.60
============================================================
==================
```

Notes:

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

Model for ACN

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y		R-squared:			0.012
Model:	OLS		Adj. R-squared:			-0.004
Method:	Least Squares		F-statistic:			0.7685
Date:	Sat, 09 Nov 2024		Prob (F-statistic):			0.547
Time:	03:37:49		Log-Likelihood:			-1192.4
No. Observations:	266		AIC:			2395.
Df Residuals:	261		BIC:			2413.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	285.2604	1.325	215.250	0.000	282.651	287.870
x1	1.6258	1.645	0.988	0.324	-1.613	4.865
x2	-0.3692	1.593	-0.232	0.817	-3.505	2.767
x3	0.8701	1.494	0.582	0.561	-2.072	3.812
x4	-1.4464	1.924	-0.752	0.453	-5.234	2.342

==

Omnibus:	62.302	Durbin-Watson:	0.039
Prob(Omnibus):	0.000	Jarque-Bera (JB):	15.441
Skew:	0.277	Prob(JB):	0.000444
Kurtosis:	1.958	Cond. No.	2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for ADBE

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.005
Model:	OLS	Adj. R-squared:	-0.010
Method:	Least Squares	F-statistic:	0.3137
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.869
Time:	03:37:49	Log-Likelihood:	-1552.0
No. Observations:	266	AIC:	3114.
Df Residuals:	261	BIC:	3132.
Df Model:	4		

Covariance Type: nonrobust
==
==================

	coef	std err	t	P>|t|	[0.025	0.975]
const	392.9401	5.121	76.725	0.000	382.856	403.025
x1	2.6548	6.357	0.418	0.677	-9.862	15.171
x2	-5.6071	6.155	-0.911	0.363	-17.726	6.512
x3	1.2523	5.773	0.217	0.828	-10.116	12.620
x4	-4.8696	7.434	-0.655	0.513	-19.508	9.769

==
==================

Omnibus:	48.366	Durbin-Watson:	0.015
Prob(Omnibus):	0.000	Jarque-Bera (JB):	30.283
Skew:	0.695	Prob(JB):	2.66e-07
Kurtosis:	2.105	Cond. No.	2.60

==
==================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for ADI

OLS Regression Results

==
==================

Dep. Variable:	y	R-squared:	0.018
Model:	OLS	Adj. R-squared:	0.003
Method:	Least Squares	F-statistic:	1.197
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.312
Time:	03:37:49	Log-Likelihood:	-1127.2
No. Observations:	266	AIC:	2264.
Df Residuals:	261	BIC:	2282.
Df Model:	4		
Covariance Type:	nonrobust		

==
==================

	coef	std err	t	P>|t|	[0.025	0.975]
const	172.1369	1.037	165.970	0.000	170.095	174.179
x1	0.8294	1.287	0.644	0.520	-1.705	3.364
x2	-0.3115	1.246	-0.250	0.803	-2.766	2.143
x3	-1.9540	1.169	-1.671	0.096	-4.256	0.348
x4	0.0497	1.506	0.033	0.974	-2.915	3.014

==
==================

```
==================
Omnibus:                    26.841    Durbin-Watson:              0.047
Prob(Omnibus):               0.000    Jarque-Bera (JB):          22.867
Skew:                       -0.633    Prob(JB):               1.08e-05
Kurtosis:                    2.323    Cond. No.                   2.60
================================================================
==================
```

Notes:

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

OLS Regression Results

```
================================================================
==================
Dep. Variable:                   y    R-squared:                  0.006
Model:                         OLS    Adj. R-squared:            -0.009
Method:              Least Squares    F-statistic:               0.3833
Date:             Sat, 09 Nov 2024    Prob (F-statistic):         0.820
Time:                     03:37:49    Log-Likelihood:            -1093.7
No. Observations:              266    AIC:                         2197.
Df Residuals:                  261    BIC:                         2215.
Df Model:                        4
Covariance Type:         nonrobust
================================================================
==================
               coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------
const       229.7347      0.914    251.216      0.000     227.934     231.535
x1            0.4080      1.135      0.359      0.720      -1.827       2.643
x2           -0.6876      1.099     -0.626      0.532      -2.852       1.476
x3            0.8522      1.031      0.827      0.409      -1.178       2.882
x4           -1.1583      1.327     -0.873      0.384      -3.772       1.456
================================================================
==================
Omnibus:                    76.380    Durbin-Watson:              0.046
Prob(Omnibus):               0.000    Jarque-Bera (JB):          19.464
Skew:                        0.386    Prob(JB):               5.94e-05
Kurtosis:                    1.923    Cond. No.                   2.60
================================================================
==================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y		R-squared:			0.011
Model:	OLS		Adj. R-squared:			-0.004
Method:	Least Squares		F-statistic:			0.7363
Date:	Sat, 09 Nov 2024		Prob (F-statistic):			0.568
Time:	03:37:49		Log-Likelihood:			-1182.4
No. Observations:	266		AIC:			2375.
Df Residuals:	261		BIC:			2393.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	116.5101	1.276	91.308	0.000	113.998	119.023
x1	0.9350	1.584	0.590	0.555	-2.184	4.054
x2	-1.0185	1.533	-0.664	0.507	-4.038	2.001
x3	-1.3955	1.438	-0.970	0.333	-4.228	1.437
x4	-0.6778	1.852	-0.366	0.715	-4.325	2.969

==

Omnibus:	33.206	Durbin-Watson:	0.023
Prob(Omnibus):	0.000	Jarque-Bera (JB):	9.397
Skew:	-0.019	Prob(JB):	0.00911
Kurtosis:	2.080	Cond. No.	2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for AMD

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.009
Model:	OLS	Adj. R-squared:	-0.006
Method:	Least Squares	F-statistic:	0.6190
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.649
Time:	03:37:49	Log-Likelihood:	-1167.3
No. Observations:	266	AIC:	2345.
Df Residuals:	261	BIC:	2362.
Df Model:	4		

Covariance Type: nonrobust
==

                    coef   std err   t   P>|t| [0.025   0.975]
----
const   88.6030   1.206   73.488   0.000   86.229   90.977
x1   1.2904   1.496   0.862   0.389   -1.656   4.237
x2   -0.5975   1.449   -0.412   0.680   -3.451   2.256
x3   -1.3519   1.359   -0.995   0.321   -4.028   1.324
x4   0.3125   1.750   0.179   0.858   -3.134   3.759
==

Omnibus: 152.890   Durbin-Watson: 0.024
Prob(Omnibus):   0.000   Jarque-Bera (JB):   17.498
Skew: 0.158   Prob(JB):   0.000159
Kurtosis: 1.784   Cond. No.   2.60
==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for AMGN
                            OLS Regression Results
==
Dep. Variable: y   R-squared: 0.014
Model: OLS   Adj. R-squared: -0.002
Method: Least Squares   F-statistic: 0.8965
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.467
Time: 03:37:49   Log-Likelihood: -1150.5
No. Observations: 266   AIC: 2311.
Df Residuals: 261   BIC: 2329.
Df Model: 4
Covariance Type: nonrobust
==

                    coef   std err   t   P>|t| [0.025   0.975]
----
const   242.6306   1.132   214.373   0.000   240.402   244.859
x1   0.7670   1.405   0.546   0.586   -1.999   3.533
x2   -1.9906   1.360   -1.463   0.145   -4.669   0.688
x3   0.5597   1.276   0.439   0.661   -1.953   3.072
x4   -2.1262   1.643   -1.294   0.197   -5.361   1.109
==

```
==================

Omnibus:                        47.954   Durbin-Watson:              0.044
Prob(Omnibus):                   0.000   Jarque-Bera (JB):          19.001
Skew:                            0.447   Prob(JB):                7.48e-05
Kurtosis:                        2.043   Cond. No.                    2.60
================================================================
==================
```

Notes:

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

<div align="center">OLS Regression Results</div>

```
================================================================
==================
Dep. Variable:                     y   R-squared:                  0.015
Model:                           OLS   Adj. R-squared:            -0.000
Method:                Least Squares   F-statistic:               0.9794
Date:              Sat, 09 Nov 2024   Prob (F-statistic):         0.419
Time:                       03:37:49   Log-Likelihood:            -1123.2
No. Observations:                266   AIC:                         2256.
Df Residuals:                    261   BIC:                         2274.
Df Model:                          4
Covariance Type:            nonrobust
================================================================
==================
                 coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------
const          200.2751      1.022    196.060      0.000     198.264     202.287
x1              -0.2931      1.268     -0.231      0.817      -2.790       2.203
x2               1.0866      1.228      0.885      0.377      -1.331       3.504
x3              -0.2802      1.151     -0.243      0.808      -2.548       1.987
x4              -1.2485      1.483     -0.842      0.401      -4.168       1.671
================================================================
==================
Omnibus:                        38.301   Durbin-Watson:              0.056
Prob(Omnibus):                   0.000   Jarque-Bera (JB):          52.143
Skew:                            0.939   Prob(JB):                4.76e-12
Kurtosis:                        4.086   Cond. No.                    2.60
================================================================
==================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y		R-squared:			0.004
Model:	OLS		Adj. R-squared:			-0.012
Method:	Least Squares		F-statistic:			0.2412
Date:	Sat, 09 Nov 2024		Prob (F-statistic):			0.915
Time:	03:37:49		Log-Likelihood:			-1131.8
No. Observations:	266		AIC:			2274.
Df Residuals:	261		BIC:			2292.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	111.6030	1.055	105.752	0.000	109.525	113.681
x1	0.8188	1.310	0.625	0.532	-1.760	3.398
x2	-0.3126	1.268	-0.246	0.806	-2.810	2.185
x3	0.8678	1.190	0.729	0.466	-1.475	3.210
x4	-0.4299	1.532	-0.281	0.779	-3.446	2.587

==

Omnibus:	273.445	Durbin-Watson:	0.025
Prob(Omnibus):	0.000	Jarque-Bera (JB):	19.679
Skew:	0.153	Prob(JB):	5.33e-05
Kurtosis:	1.703	Cond. No.	2.60

==

Notes:

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

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.003
Model:	OLS	Adj. R-squared:	-0.013
Method:	Least Squares	F-statistic:	0.1718
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.953
Time:	03:37:49	Log-Likelihood:	-1714.5
No. Observations:	266	AIC:	3439.
Df Residuals:	261	BIC:	3457.
Df Model:	4		

Covariance Type: nonrobust
===

	coef	std err	t	P>|t|	[0.025	0.975]
const	644.5732	9.434	68.326	0.000	625.997	663.149
x1	4.8278	11.709	0.412	0.680	-18.229	27.884
x2	-5.8042	11.337	-0.512	0.609	-28.128	16.520
x3	-2.8667	10.634	-0.270	0.788	-23.807	18.073
x4	-2.8654	13.694	-0.209	0.834	-29.830	24.100

===

Omnibus:	158.484	Durbin-Watson:	0.009
Prob(Omnibus):	0.000	Jarque-Bera (JB):	24.166
Skew:	0.420	Prob(JB):	5.65e-06
Kurtosis:	1.785	Cond. No.	2.60

===

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for AXP

OLS Regression Results
===

Dep. Variable:	y	R-squared:	0.008
Model:	OLS	Adj. R-squared:	-0.007
Method:	Least Squares	F-statistic:	0.5238
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.718
Time:	03:37:49	Log-Likelihood:	-1020.3
No. Observations:	266	AIC:	2051.
Df Residuals:	261	BIC:	2069.
Df Model:	4		
Covariance Type:	nonrobust		

===

	coef	std err	t	P>|t|	[0.025	0.975]
const	158.0556	0.694	227.765	0.000	156.689	159.422
x1	0.5975	0.861	0.694	0.489	-1.099	2.293
x2	-0.0429	0.834	-0.051	0.959	-1.685	1.599
x3	-0.3320	0.782	-0.424	0.672	-1.872	1.208
x4	-0.3373	1.007	-0.335	0.738	-2.321	1.646

===

```
===================
Omnibus:                      20.023    Durbin-Watson:                0.057
Prob(Omnibus):                 0.000    Jarque-Bera (JB):            7.286
Skew:                          0.030    Prob(JB):                   0.0262
Kurtosis:                      2.191    Cond. No.                    2.60
============================================================
===================
```

Notes:

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

                          OLS Regression Results
```
============================================================
===================
Dep. Variable:                     y    R-squared:                   0.019
Model:                           OLS    Adj. R-squared:              0.004
Method:                Least Squares    F-statistic:                 1.235
Date:              Sat, 09 Nov 2024    Prob (F-statistic):          0.297
Time:                       03:37:50    Log-Likelihood:             -1268.8
No. Observations:                266    AIC:                         2548.
Df Residuals:                    261    BIC:                         2566.
Df Model:                          4
Covariance Type:            nonrobust
============================================================
===================
                 coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------
const        195.0914      1.766    110.465      0.000     191.614     198.569
x1             0.7194      2.192      0.328      0.743      -3.597       5.036
x2            -0.9417      2.122     -0.444      0.658      -5.121       3.237
x3            -3.0115      1.991     -1.513      0.132      -6.932       0.909
x4            -1.3160      2.564     -0.513      0.608      -6.364       3.732
============================================================
===================
Omnibus:                      31.032    Durbin-Watson:                0.042
Prob(Omnibus):                 0.000    Jarque-Bera (JB):          39.673
Skew:                         -0.946    Prob(JB):                  2.43e-09
Kurtosis:                      2.946    Cond. No.                    2.60
============================================================
===================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:		y	R-squared:			0.020
Model:		OLS	Adj. R-squared:			0.005
Method:		Least Squares	F-statistic:			1.339
Date:		Sat, 09 Nov 2024	Prob (F-statistic):			0.256
Time:		03:37:50	Log-Likelihood:			-655.09
No. Observations:		266	AIC:			1320.
Df Residuals:		261	BIC:			1338.
Df Model:		4				
Covariance Type:		nonrobust				

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	31.0323	0.176	176.528	0.000	30.686	31.378
x1	0.1222	0.218	0.560	0.576	-0.307	0.552
x2	-0.0032	0.211	-0.015	0.988	-0.419	0.413
x3	0.3466	0.198	1.749	0.081	-0.044	0.737
x4	-0.3411	0.255	-1.337	0.183	-0.844	0.161

==

Omnibus:	98.188	Durbin-Watson:	0.040
Prob(Omnibus):	0.000	Jarque-Bera (JB):	19.128
Skew:	0.333	Prob(JB):	7.02e-05
Kurtosis:	1.868	Cond. No.	2.60

==

Notes:

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

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.008
Model:	OLS	Adj. R-squared:	-0.007
Method:	Least Squares	F-statistic:	0.5429
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.704
Time:	03:37:50	Log-Likelihood:	-1997.9
No. Observations:	266	AIC:	4006.
Df Residuals:	261	BIC:	4024.
Df Model:	4		

Covariance Type: nonrobust
==
==================
                   coef   std err   t   P>|t| [0.025   0.975]
----
const   2435.8838   27.375   88.980   0.000   2381.979   2489.789
x1   0.8146   33.978   0.024   0.981   -66.091   67.721
x2   -24.3814   32.898   -0.741   0.459   -89.162   40.399
x3   -33.7045   30.859   -1.092   0.276   -94.469   27.060
x4   -11.7085   39.738   -0.295   0.769   -89.957   66.539
==
==================
Omnibus: 60.999   Durbin-Watson: 0.024
Prob(Omnibus):   0.000   Jarque-Bera (JB):   12.351
Skew: -0.060   Prob(JB):   0.00208
Kurtosis: 1.951   Cond. No.   2.60
==
==================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for BLK
                        OLS Regression Results
==
==================
Dep. Variable: y   R-squared: 0.046
Model: OLS   Adj. R-squared: 0.032
Method: Least Squares   F-statistic: 3.159
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.0147
Time: 03:37:50   Log-Likelihood: -1405.9
No. Observations: 266   AIC: 2822.
Df Residuals: 261   BIC: 2840.
Df Model: 4
Covariance Type: nonrobust
==
==================
                   coef   std err   t   P>|t| [0.025   0.975]
----
const   669.7865   2.957   226.499   0.000   663.964   675.609
x1   2.1559   3.670   0.587   0.557   -5.071   9.383
x2   -0.8760   3.554   -0.246   0.805   -7.874   6.122
x3   0.0151   3.333   0.005   0.996   -6.549   6.579
x4   -9.5771   4.293   -2.231   0.027   -18.030   -1.125
==

=====================

Omnibus:	35.434	Durbin-Watson:	0.075
Prob(Omnibus):	0.000	Jarque-Bera (JB):	45.639
Skew:	-0.932	Prob(JB):	1.23e-10
Kurtosis:	3.803	Cond. No.	2.60

==
=====================

Notes:

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

OLS Regression Results

==
=====================

Dep. Variable:	y	R-squared:	0.004
Model:	OLS	Adj. R-squared:	-0.012
Method:	Least Squares	F-statistic:	0.2454
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.912
Time:	03:37:50	Log-Likelihood:	-797.09
No. Observations:	266	AIC:	1604.
Df Residuals:	261	BIC:	1622.
Df Model:	4		
Covariance Type:	nonrobust		

==
=====================

	coef	std err	t	P>|t|	[0.025	0.975]
const	67.8477	0.300	226.307	0.000	67.257	68.438
x1	0.2223	0.372	0.597	0.551	-0.510	0.955
x2	0.1221	0.360	0.339	0.735	-0.587	0.832
x3	0.1599	0.338	0.473	0.636	-0.506	0.825
x4	-0.0314	0.435	-0.072	0.942	-0.888	0.825

==
=====================

Omnibus:	7.195	Durbin-Watson:	0.029
Prob(Omnibus):	0.027	Jarque-Bera (JB):	5.960
Skew:	0.278	Prob(JB):	0.0508
Kurtosis:	2.522	Cond. No.	2.60

==
=====================

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for BRK-B

OLS Regression Results

===

	coef	std err	t	P>|t|	[0.025	0.975]

Dep. Variable: y **R-squared:** 0.006
Model: OLS **Adj. R-squared:** -0.009
Method: Least Squares **F-statistic:** 0.3784
Date: Sat, 09 Nov 2024 **Prob (F-statistic):** 0.824
Time: 03:37:50 **Log-Likelihood:** -1242.9
No. Observations: 266 **AIC:** 2496.
Df Residuals: 261 **BIC:** 2514.
Df Model: 4
Covariance Type: nonrobust

===

	coef	std err	t	P>|t|	[0.025	0.975]
const	317.2955	1.602	198.017	0.000	314.140	320.451
x1	0.9843	1.989	0.495	0.621	-2.932	4.901
x2	-1.0968	1.926	-0.570	0.569	-4.889	2.695
x3	-0.4590	1.806	-0.254	0.800	-4.016	3.098
x4	-1.3090	2.326	-0.563	0.574	-5.889	3.271

===

Omnibus:	8.874	**Durbin-Watson:**	0.017
Prob(Omnibus):	0.012	**Jarque-Bera (JB):**	4.803
Skew:	0.101	**Prob(JB):**	0.0906
Kurtosis:	2.374	**Cond. No.**	2.60

===

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for BSX

OLS Regression Results

===

Dep. Variable: y **R-squared:** 0.008
Model: OLS **Adj. R-squared:** -0.007
Method: Least Squares **F-statistic:** 0.5479
Date: Sat, 09 Nov 2024 **Prob (F-statistic):** 0.701
Time: 03:37:50 **Log-Likelihood:** -778.39
No. Observations: 266 **AIC:** 1567.
Df Residuals: 261 **BIC:** 1585.
Df Model: 4

Covariance Type: nonrobust
==

	coef	std err	t	P>|t|	[0.025	0.975]
const	48.0497	0.279	171.939	0.000	47.499	48.600
x1	0.1899	0.347	0.548	0.584	-0.493	0.873
x2	-0.0820	0.336	-0.244	0.807	-0.743	0.579
x3	-0.3690	0.315	-1.171	0.243	-0.989	0.251
x4	0.0847	0.406	0.209	0.835	-0.714	0.883

==

Omnibus:	61.842	Durbin-Watson:	0.025
Prob(Omnibus):	0.000	Jarque-Bera (JB):	17.939
Skew:	-0.373	Prob(JB):	0.000127
Kurtosis:	1.969	Cond. No.	2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for C

OLS Regression Results
==

Dep. Variable:	y	R-squared:	0.025
Model:	OLS	Adj. R-squared:	0.010
Method:	Least Squares	F-statistic:	1.686
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.153
Time:	03:37:50	Log-Likelihood:	-642.04
No. Observations:	266	AIC:	1294.
Df Residuals:	261	BIC:	1312.
Df Model:	4		
Covariance Type:	nonrobust		

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	45.3997	0.167	271.245	0.000	45.070	45.729
x1	0.1207	0.208	0.581	0.562	-0.288	0.530
x2	0.1047	0.201	0.520	0.603	-0.291	0.501
x3	-0.0773	0.189	-0.410	0.682	-0.449	0.294
x4	-0.2446	0.243	-1.007	0.315	-0.723	0.234

==

```
===================
Omnibus:                        8.963    Durbin-Watson:                   0.095
Prob(Omnibus):                  0.011    Jarque-Bera (JB):                4.542
Skew:                           0.019    Prob(JB):                        0.103
Kurtosis:                       2.361    Cond. No.                        2.60
================================================================
===================
```

Notes:

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

Model for CAT

OLS Regression Results

```
================================================================
===================
Dep. Variable:                     y    R-squared:                       0.008
Model:                           OLS    Adj. R-squared:                 -0.008
Method:                Least Squares    F-statistic:                     0.5048
Date:               Sat, 09 Nov 2024    Prob (F-statistic):              0.732
Time:                       03:37:50    Log-Likelihood:                 -1290.0
No. Observations:                266    AIC:                             2590.
Df Residuals:                    261    BIC:                             2608.
Df Model:                          4
Covariance Type:            nonrobust
================================================================
===================
                 coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------
const        230.8125      1.913    120.663      0.000     227.046     234.579
x1            -0.0707      2.374     -0.030      0.976      -4.746       4.604
x2            -2.1993      2.299     -0.957      0.340      -6.726       2.327
x3             0.2828      2.156      0.131      0.896      -3.963       4.529
x4            -3.3622      2.777     -1.211      0.227      -8.830       2.105
================================================================
===================
Omnibus:                        4.761    Durbin-Watson:                   0.031
Prob(Omnibus):                  0.092    Jarque-Bera (JB):                4.550
Skew:                          -0.270    Prob(JB):                        0.103
Kurtosis:                       2.654    Cond. No.                        2.60
================================================================
===================
```

Notes:

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

Model for CB

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y		R-squared:			0.014
Model:	OLS		Adj. R-squared:			-0.001
Method:	Least Squares		F-statistic:			0.9563
Date:	Sat, 09 Nov 2024		Prob (F-statistic):			0.432
Time:	03:37:50		Log-Likelihood:			-1023.7
No. Observations:	266		AIC:			2057.
Df Residuals:	261		BIC:			2075.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	200.4735	0.703	285.236	0.000	199.090	201.857
x1	0.0200	0.872	0.023	0.982	-1.698	1.738
x2	-0.0931	0.845	-0.110	0.912	-1.756	1.570
x3	0.7691	0.792	0.971	0.333	-0.791	2.329
x4	-1.5736	1.020	-1.542	0.124	-3.582	0.435

==

Omnibus:	12.151	Durbin-Watson:		0.070
Prob(Omnibus):	0.002	Jarque-Bera (JB):		6.379
Skew:	0.171	Prob(JB):		0.0412
Kurtosis:	2.323	Cond. No.		2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for CI

OLS Regression Results

==

Dep. Variable:	y	R-squared:		0.020
Model:	OLS	Adj. R-squared:		0.005
Method:	Least Squares	F-statistic:		1.309
Date:	Sat, 09 Nov 2024	Prob (F-statistic):		0.267
Time:	03:37:50	Log-Likelihood:		-1200.4
No. Observations:	266	AIC:		2411.
Df Residuals:	261	BIC:		2429.
Df Model:	4			

Covariance Type: nonrobust
==
==================

                 coef   std err   t   P>|t| [0.025   0.975]
----
const   285.1459   1.365   208.835   0.000   282.457   287.835
x1   -0.2807   1.695   -0.166   0.869   -3.618   3.056
x2   0.0023   1.641   0.001   0.999   -3.229   3.233
x3   3.2998   1.539   2.144   0.033   0.269   6.331
x4   -2.5510   1.982   -1.287   0.199   -6.454   1.352
==
==================
Omnibus: 9.286   Durbin-Watson: 0.076
Prob(Omnibus):   0.010   Jarque-Bera (JB):   6.028
Skew: 0.219   Prob(JB):   0.0491
Kurtosis: 2.406   Cond. No.   2.60
==
==================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for CMCSA
                       OLS Regression Results
==
==================
Dep. Variable: y   R-squared: 0.007
Model: OLS   Adj. R-squared: -0.009
Method: Least Squares   F-statistic: 0.4335
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.784
Time: 03:37:50   Log-Likelihood: -795.46
No. Observations: 266   AIC: 1601.
Df Residuals: 261   BIC: 1619.
Df Model: 4
Covariance Type: nonrobust
==
==================

                 coef   std err   t   P>|t| [0.025   0.975]
----
const   37.8294   0.298   126.956   0.000   37.243   38.416
x1   -0.0091   0.370   -0.025   0.980   -0.737   0.719
x2   -0.1121   0.358   -0.313   0.755   -0.817   0.593
x3   -0.2878   0.336   -0.857   0.392   -0.949   0.374
x4   -0.2119   0.433   -0.490   0.625   -1.064   0.640
==

```
===================
```

Omnibus:	18.274	Durbin-Watson:	0.023
Prob(Omnibus):	0.000	Jarque-Bera (JB):	7.093
Skew:	0.075	Prob(JB):	0.0288
Kurtosis:	2.214	Cond. No.	2.60

```
============================================================
===================
```

Notes:

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

OLS Regression Results

```
============================================================
===================
```

Dep. Variable:	y	R-squared:	0.040
Model:	OLS	Adj. R-squared:	0.026
Method:	Least Squares	F-statistic:	2.750
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.0287
Time:	03:37:50	Log-Likelihood:	-954.36
No. Observations:	266	AIC:	1919.
Df Residuals:	261	BIC:	1937.
Df Model:	4		
Covariance Type:	nonrobust		

```
============================================================
===================
```

	coef	std err	t	P>|t|	[0.025	0.975]
const	109.7340	0.542	202.642	0.000	108.668	110.800
x1	0.7400	0.672	1.101	0.272	-0.583	2.064
x2	-0.8906	0.651	-1.369	0.172	-2.172	0.391
x3	1.8030	0.610	2.954	0.003	0.601	3.005
x4	-1.2633	0.786	-1.607	0.109	-2.811	0.285

```
============================================================
===================
```

Omnibus:	35.166	Durbin-Watson:	0.094
Prob(Omnibus):	0.000	Jarque-Bera (JB):	11.255
Skew:	0.205	Prob(JB):	0.00360
Kurtosis:	2.080	Cond. No.	2.60

```
============================================================
===================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y		R-squared:			0.009
Model:	OLS		Adj. R-squared:			-0.007
Method:	Least Squares		F-statistic:			0.5698
Date:	Sat, 09 Nov 2024		Prob (F-statistic):			0.685
Time:	03:37:50		Log-Likelihood:			-1281.1
No. Observations:	266		AIC:			2572.
Df Residuals:	261		BIC:			2590.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	505.9451	1.850	273.556	0.000	502.303	509.587
x1	2.0959	2.296	0.913	0.362	-2.424	6.616
x2	-2.0406	2.223	-0.918	0.359	-6.417	2.336
x3	0.3395	2.085	0.163	0.871	-3.766	4.445
x4	-1.6291	2.685	-0.607	0.545	-6.916	3.657

==

Omnibus:	22.541	Durbin-Watson:	0.043
Prob(Omnibus):	0.000	Jarque-Bera (JB):	11.828
Skew:	0.339	Prob(JB):	0.00270
Kurtosis:	2.221	Cond. No.	2.60

==

Notes:

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

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.008
Model:	OLS	Adj. R-squared:	-0.007
Method:	Least Squares	F-statistic:	0.5092
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.729
Time:	03:37:50	Log-Likelihood:	-1284.6
No. Observations:	266	AIC:	2579.
Df Residuals:	261	BIC:	2597.
Df Model:	4		

Covariance Type: nonrobust
==
                  coef   std err   t   P>|t| [0.025   0.975]
----
const   180.9082   1.874   96.531   0.000   177.218   184.598
x1   2.2757   2.326   0.978   0.329   -2.305   6.856
x2   -1.2958   2.252   -0.575   0.566   -5.731   3.139
x3   -1.2558   2.113   -0.594   0.553   -5.416   2.904
x4   0.1873   2.720   0.069   0.945   -5.169   5.544
==
Omnibus: 783.436   Durbin-Watson: 0.019
Prob(Omnibus):   0.000   Jarque-Bera (JB):   21.562
Skew: -0.060   Prob(JB):   2.08e-05
Kurtosis: 1.610   Cond. No.   2.60
==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for CSCO
                        OLS Regression Results
==
Dep. Variable: y   R-squared: 0.011
Model: OLS   Adj. R-squared: -0.004
Method: Least Squares   F-statistic: 0.7043
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.590
Time: 03:37:50   Log-Likelihood: -764.74
No. Observations: 266   AIC: 1539.
Df Residuals: 261   BIC: 1557.
Df Model: 4
Covariance Type: nonrobust
==
                  coef   std err   t   P>|t| [0.025   0.975]
----
const   48.1854   0.265   181.507   0.000   47.663   48.708
x1   0.1406   0.330   0.427   0.670   -0.508   0.789
x2   -0.3951   0.319   -1.239   0.217   -1.023   0.233
x3   -0.1474   0.299   -0.493   0.623   -0.737   0.442
x4   -0.3000   0.385   -0.778   0.437   -1.059   0.459
==

```
==================
Omnibus:                          0.602    Durbin-Watson:                    0.031
Prob(Omnibus):                    0.740    Jarque-Bera (JB):                 0.717
Skew:                            -0.040    Prob(JB):                         0.699
Kurtosis:                         2.759    Cond. No.                         2.60
========================================================================
==================
```

Notes:

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

OLS Regression Results

```
========================================================================
==================
Dep. Variable:                       y    R-squared:                        0.006
Model:                             OLS    Adj. R-squared:                  -0.009
Method:                  Least Squares    F-statistic:                     0.4259
Date:                 Sat, 09 Nov 2024    Prob (F-statistic):               0.790
Time:                         03:37:50    Log-Likelihood:                  -1021.6
No. Observations:                  266    AIC:                              2053.
Df Residuals:                      261    BIC:                              2071.
Df Model:                            4
Covariance Type:              nonrobust
========================================================================
==================
                 coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------
const         81.0168      0.697    116.174      0.000      79.644      82.390
x1            -0.3027      0.866     -0.350      0.727      -2.007       1.402
x2             0.2290      0.838      0.273      0.785      -1.421       1.879
x3             0.9014      0.786      1.147      0.253      -0.647       2.449
x4            -0.6009      1.012     -0.594      0.553      -2.594       1.392
========================================================================
==================
Omnibus:                        773.490    Durbin-Watson:                    0.027
Prob(Omnibus):                    0.000    Jarque-Bera (JB):                25.112
Skew:                             0.291    Prob(JB):                      3.52e-06
Kurtosis:                         1.611    Cond. No.                         2.60
========================================================================
==================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y	R-squared:				0.026
Model:	OLS	Adj. R-squared:				0.011
Method:	Least Squares	F-statistic:				1.723
Date:	Sat, 09 Nov 2024	Prob (F-statistic):				0.145
Time:	03:37:50	Log-Likelihood:				-958.09
No. Observations:	266	AIC:				1926.
Df Residuals:	261	BIC:				1944.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	161.6046	0.549	294.275	0.000	160.523	162.686
x1	1.0137	0.682	1.487	0.138	-0.328	2.356
x2	-0.9159	0.660	-1.388	0.166	-2.215	0.384
x3	0.9190	0.619	1.485	0.139	-0.300	2.138
x4	-1.0044	0.797	-1.260	0.209	-2.574	0.565

==

Omnibus:	3.253	Durbin-Watson:	0.077
Prob(Omnibus):	0.197	Jarque-Bera (JB):	2.474
Skew:	0.087	Prob(JB):	0.290
Kurtosis:	2.561	Cond. No.	2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for DE

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.006
Model:	OLS	Adj. R-squared:	-0.009
Method:	Least Squares	F-statistic:	0.3769
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.825
Time:	03:37:50	Log-Likelihood:	-1258.3
No. Observations:	266	AIC:	2527.
Df Residuals:	261	BIC:	2545.
Df Model:	4		

Covariance Type: nonrobust
==

	coef	std err	t	P>|t|	[0.025	0.975]
const	398.3276	1.698	234.636	0.000	394.985	401.670
x1	0.2918	2.107	0.138	0.890	-3.857	4.441
x2	-0.8733	2.040	-0.428	0.669	-4.891	3.144
x3	0.2582	1.914	0.135	0.893	-3.510	4.026
x4	-2.3617	2.464	-0.958	0.339	-7.214	2.491

==

Omnibus:	18.936	Durbin-Watson:	0.066
Prob(Omnibus):	0.000	Jarque-Bera (JB):	12.664
Skew:	-0.406	Prob(JB):	0.00178
Kurtosis:	2.305	Cond. No.	2.60

==

Notes:

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

OLS Regression Results
==

Dep. Variable:	y	R-squared:	0.012
Model:	OLS	Adj. R-squared:	-0.003
Method:	Least Squares	F-statistic:	0.7898
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.533
Time:	03:37:50	Log-Likelihood:	-1068.2
No. Observations:	266	AIC:	2146.
Df Residuals:	261	BIC:	2164.
Df Model:	4		
Covariance Type:	nonrobust		

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	253.4518	0.831	305.076	0.000	251.816	255.088
x1	-0.3370	1.031	-0.327	0.744	-2.367	1.693
x2	0.1348	0.998	0.135	0.893	-1.831	2.101
x3	0.4708	0.937	0.503	0.616	-1.373	2.315
x4	-1.7070	1.206	-1.415	0.158	-4.082	0.668

==

```
===================
Omnibus:                        1.627    Durbin-Watson:                 0.108
Prob(Omnibus):                  0.443    Jarque-Bera (JB):              1.444
Skew:                           0.036    Prob(JB):                      0.486
Kurtosis:                       2.646    Cond. No.                      2.60
============================================================================
===================
```

Notes:

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

                                OLS Regression Results
```
============================================================================
===================
Dep. Variable:                       y    R-squared:                     0.007
Model:                             OLS    Adj. R-squared:               -0.008
Method:                  Least Squares    F-statistic:                   0.4712
Date:                 Sat, 09 Nov 2024    Prob (F-statistic):            0.757
Time:                         03:37:50    Log-Likelihood:              -930.57
No. Observations:                  266    AIC:                           1871.
Df Residuals:                      261    BIC:                           1889.
Df Model:                            4
Covariance Type:               nonrobust
============================================================================
===================
                 coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------
const         95.3761      0.495    192.607      0.000      94.401      96.351
x1             0.3533      0.615      0.575      0.566      -0.857       1.564
x2             0.5332      0.595      0.896      0.371      -0.639       1.705
x3            -0.2025      0.558     -0.363      0.717      -1.302       0.897
x4             0.2254      0.719      0.314      0.754      -1.190       1.641
============================================================================
===================
Omnibus:                       12.122    Durbin-Watson:                 0.057
Prob(Omnibus):                  0.002    Jarque-Bera (JB):              9.708
Skew:                           0.375    Prob(JB):                      0.00780
Kurtosis:                       2.440    Cond. No.                      2.60
============================================================================
===================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y	R-squared:				0.013
Model:	OLS	Adj. R-squared:				-0.002
Method:	Least Squares	F-statistic:				0.8606
Date:	Sat, 09 Nov 2024	Prob (F-statistic):				0.488
Time:	03:37:50	Log-Likelihood:				-1226.8
No. Observations:	266	AIC:				2464.
Df Residuals:	261	BIC:				2481.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	471.3650	1.508	312.609	0.000	468.396	474.334
x1	1.7909	1.872	0.957	0.339	-1.894	5.476
x2	-0.7521	1.812	-0.415	0.678	-4.320	2.816
x3	2.6221	1.700	1.543	0.124	-0.725	5.969
x4	-1.4647	2.189	-0.669	0.504	-5.775	2.845

==

Omnibus:	19.332	Durbin-Watson:	0.108
Prob(Omnibus):	0.000	Jarque-Bera (JB):	21.730
Skew:	0.696	Prob(JB):	1.91e-05
Kurtosis:	3.145	Cond. No.	2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for ETN

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.004
Model:	OLS	Adj. R-squared:	-0.011
Method:	Least Squares	F-statistic:	0.2638
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.901
Time:	03:37:50	Log-Likelihood:	-1254.2
No. Observations:	266	AIC:	2518.
Df Residuals:	261	BIC:	2536.
Df Model:	4		

Covariance Type: nonrobust
==

	coef	std err	t	P>|t|	[0.025	0.975]
const	172.5158	1.672	103.192	0.000	169.224	175.808
x1	0.5745	2.075	0.277	0.782	-3.511	4.660
x2	-1.9010	2.009	-0.946	0.345	-5.857	2.055
x3	-0.2294	1.885	-0.122	0.903	-3.940	3.481
x4	-1.0364	2.427	-0.427	0.670	-5.815	3.742

==

Omnibus:	21.476	Durbin-Watson:	0.018
Prob(Omnibus):	0.000	Jarque-Bera (JB):	20.800
Skew:	0.626	Prob(JB):	3.04e-05
Kurtosis:	2.446	Cond. No.	2.60

==

Notes:

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

Model for GE

OLS Regression Results
==

Dep. Variable:	y	R-squared:	0.007
Model:	OLS	Adj. R-squared:	-0.008
Method:	Least Squares	F-statistic:	0.4451
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.776
Time:	03:37:50	Log-Likelihood:	-1192.6
No. Observations:	266	AIC:	2395.
Df Residuals:	261	BIC:	2413.
Df Model:	4		
Covariance Type:	nonrobust		

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	86.4831	1.326	65.210	0.000	83.872	89.095
x1	0.5263	1.646	0.320	0.749	-2.715	3.768
x2	-0.7929	1.594	-0.497	0.619	-3.931	2.345
x3	-1.4922	1.495	-0.998	0.319	-4.436	1.452
x4	-0.1706	1.925	-0.089	0.929	-3.961	3.620

==

```
===================
Omnibus:                      437.089    Durbin-Watson:              0.017
Prob(Omnibus):                  0.000    Jarque-Bera (JB):          22.120
Skew:                          -0.214    Prob(JB):                1.57e-05
Kurtosis:                       1.654    Cond. No.                    2.60
================================================================
===================
```

Notes:

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

OLS Regression Results
```
================================================================
===================
Dep. Variable:                      y    R-squared:                  0.012
Model:                            OLS    Adj. R-squared:            -0.003
Method:                 Least Squares    F-statistic:               0.8240
Date:                Sat, 09 Nov 2024    Prob (F-statistic):         0.511
Time:                        03:37:50    Log-Likelihood:            -877.13
No. Observations:                 266    AIC:                        1764.
Df Residuals:                     261    BIC:                        1782.
Df Model:                           4
Covariance Type:            nonrobust
================================================================
===================
                 coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------
const         76.6946      0.405    189.344      0.000      75.897      77.492
x1             0.2256      0.503      0.449      0.654      -0.764       1.216
x2            -0.3101      0.487     -0.637      0.525      -1.269       0.648
x3            -0.5011      0.457     -1.097      0.273      -1.400       0.398
x4            -0.2725      0.588     -0.463      0.643      -1.430       0.885
================================================================
===================
Omnibus:                       45.576    Durbin-Watson:              0.045
Prob(Omnibus):                  0.000    Jarque-Bera (JB):          63.618
Skew:                          -1.156    Prob(JB):                1.53e-14
Kurtosis:                       3.629    Cond. No.                    2.60
================================================================
===================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y		R-squared:			0.003
Model:	OLS		Adj. R-squared:			-0.012
Method:	Least Squares		F-statistic:			0.2061
Date:	Sat, 09 Nov 2024		Prob (F-statistic):			0.935
Time:	03:37:50		Log-Likelihood:			-1098.3
No. Observations:	266		AIC:			2207.
Df Residuals:	261		BIC:			2224.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	108.6298	0.930	116.779	0.000	106.798	110.461
x1	0.7290	1.155	0.631	0.528	-1.544	3.003
x2	-0.5869	1.118	-0.525	0.600	-2.788	1.614
x3	0.0558	1.049	0.053	0.958	-2.009	2.121
x4	-0.3356	1.350	-0.249	0.804	-2.994	2.323

==

Omnibus:	87.668	Durbin-Watson:	0.018
Prob(Omnibus):	0.000	Jarque-Bera (JB):	22.206
Skew:	0.445	Prob(JB):	1.51e-05
Kurtosis:	1.899	Cond. No.	2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for GOOGL

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.003
Model:	OLS	Adj. R-squared:	-0.012
Method:	Least Squares	F-statistic:	0.1950
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.941
Time:	03:37:50	Log-Likelihood:	-1096.8
No. Observations:	266	AIC:	2204.
Df Residuals:	261	BIC:	2222.
Df Model:	4		

Covariance Type: nonrobust
===

	coef	std err	t	P>|t|	[0.025	0.975]
const	108.0375	0.925	116.782	0.000	106.216	109.859
x1	0.7149	1.148	0.623	0.534	-1.546	2.976
x2	-0.5817	1.112	-0.523	0.601	-2.771	1.607
x3	0.0639	1.043	0.061	0.951	-1.990	2.117
x4	-0.3086	1.343	-0.230	0.818	-2.953	2.336

===

Omnibus:	91.387	Durbin-Watson:	0.018
Prob(Omnibus):	0.000	Jarque-Bera (JB):	22.649
Skew:	0.451	Prob(JB):	1.21e-05
Kurtosis:	1.890	Cond. No.	2.60

===

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for GS

OLS Regression Results
===

Dep. Variable:	y	R-squared:	0.012
Model:	OLS	Adj. R-squared:	-0.004
Method:	Least Squares	F-statistic:	0.7613
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.551
Time:	03:37:50	Log-Likelihood:	-1179.4
No. Observations:	266	AIC:	2369.
Df Residuals:	261	BIC:	2387.
Df Model:	4		
Covariance Type:	nonrobust		

===

	coef	std err	t	P>|t|	[0.025	0.975]
const	332.4713	1.262	263.509	0.000	329.987	334.956
x1	0.5329	1.566	0.340	0.734	-2.551	3.617
x2	-0.4970	1.516	-0.328	0.743	-3.483	2.489
x3	0.3882	1.422	0.273	0.785	-2.412	3.189
x4	-2.2424	1.831	-1.224	0.222	-5.849	1.364

===

```
==================
Omnibus:                        1.775   Durbin-Watson:                   0.062
Prob(Omnibus):                  0.412   Jarque-Bera (JB):               1.551
Skew:                           0.048   Prob(JB):                       0.461
Kurtosis:                       2.639   Cond. No.                       2.60
============================================================================
==================
```

Notes:

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

Model for HD

OLS Regression Results

```
============================================================================
==================
Dep. Variable:                    y   R-squared:                      0.018
Model:                          OLS   Adj. R-squared:                 0.003
Method:               Least Squares   F-statistic:                    1.203
Date:              Sat, 09 Nov 2024   Prob (F-statistic):             0.310
Time:                      03:37:50   Log-Likelihood:                -1152.1
No. Observations:               266   AIC:                             2314.
Df Residuals:                   261   BIC:                             2332.
Df Model:                         4
Covariance Type:          nonrobust
============================================================================
==================
                 coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------
const         300.4129      1.139    263.799      0.000     298.171     302.655
x1              0.2194      1.413      0.155      0.877      -2.564       3.003
x2              0.1501      1.369      0.110      0.913      -2.545       2.845
x3              0.3719      1.284      0.290      0.772      -2.156       2.900
x4             -2.4226      1.653     -1.465      0.144      -5.678       0.832
============================================================================
==================
Omnibus:                       76.056   Durbin-Watson:                   0.061
Prob(Omnibus):                  0.000   Jarque-Bera (JB):               13.312
Skew:                          -0.038   Prob(JB):                       0.00129
Kurtosis:                       1.907   Cond. No.                       2.60
============================================================================
==================
```

Notes:

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

Model for HON

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]

Dep. Variable: y   R-squared: 0.028
Model: OLS   Adj. R-squared: 0.013
Method: Least Squares   F-statistic: 1.865
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.117
Time: 03:37:50   Log-Likelihood: -1026.7
No. Observations: 266   AIC: 2063.
Df Residuals: 261   BIC: 2081.
Df Model: 4
Covariance Type: nonrobust

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	194.8044	0.711	274.053	0.000	193.405	196.204
x1	1.0576	0.882	1.199	0.232	-0.680	2.795
x2	0.3389	0.854	0.397	0.692	-1.343	2.021
x3	0.0795	0.801	0.099	0.921	-1.498	1.657
x4	-0.9417	1.032	-0.913	0.362	-2.973	1.090

==

Omnibus: 7.389   Durbin-Watson: 0.054
Prob(Omnibus):   0.025   Jarque-Bera (JB):   7.662
Skew: -0.406   Prob(JB):   0.0217
Kurtosis: 2.822   Cond. No.   2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for IBM

OLS Regression Results

==

Dep. Variable: y   R-squared: 0.010
Model: OLS   Adj. R-squared: -0.005
Method: Least Squares   F-statistic: 0.6644
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.617
Time: 03:37:50   Log-Likelihood: -964.23
No. Observations: 266   AIC: 1938.
Df Residuals: 261   BIC: 1956.
Df Model: 4

Covariance Type: nonrobust
==
                 coef   std err   t   P>|t| [0.025   0.975]
----
const   131.4730   0.562   233.939   0.000   130.366   132.580
x1   0.1168   0.698   0.167   0.867   -1.257   1.490
x2   -0.6545   0.675   -0.969   0.333   -1.984   0.675
x3   0.4378   0.634   0.691   0.490   -0.810   1.685
x4   -1.1376   0.816   -1.395   0.164   -2.744   0.469
==
Omnibus: 36.173   Durbin-Watson: 0.039
Prob(Omnibus):   0.000   Jarque-Bera (JB):   9.868
Skew: 0.051   Prob(JB):   0.00720
Kurtosis: 2.062   Cond. No.   2.60
==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for INTC

                          OLS Regression Results
==
Dep. Variable: y   R-squared: 0.015
Model: OLS   Adj. R-squared: -0.001
Method: Least Squares   F-statistic: 0.9623
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.429
Time: 03:37:50   Log-Likelihood: -701.94
No. Observations: 266   AIC: 1414.
Df Residuals: 261   BIC: 1432.
Df Model: 4
Covariance Type: nonrobust
==
                 coef   std err   t   P>|t| [0.025   0.975]
----
const   30.0266   0.210   143.223   0.000   29.614   30.439
x1   0.2523   0.260   0.970   0.333   -0.260   0.765
x2   -0.3501   0.252   -1.390   0.166   -0.846   0.146
x3   0.0076   0.236   0.032   0.974   -0.458   0.473
x4   -0.2729   0.304   -0.897   0.371   -0.872   0.326
==

```
==================
Omnibus:                       16.201    Durbin-Watson:              0.053
Prob(Omnibus):                  0.000    Jarque-Bera (JB):          15.281
Skew:                           0.528    Prob(JB):                0.000481
Kurtosis:                       2.487    Cond. No.                    2.60
===============================================================
==================
```

Notes:

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

<div align="center">OLS Regression Results</div>

```
===============================================================
==================
Dep. Variable:                      y    R-squared:                  0.005
Model:                            OLS    Adj. R-squared:            -0.010
Method:                 Least Squares    F-statistic:               0.3174
Date:                Sat, 09 Nov 2024    Prob (F-statistic):         0.866
Time:                        03:37:50    Log-Likelihood:            -1389.2
No. Observations:                 266    AIC:                        2788.
Df Residuals:                     261    BIC:                        2806.
Df Model:                           4
Covariance Type:            nonrobust
===============================================================
==================
                 coef    std err          t      P>|t|      [0.025      0.975]
---------------------------------------------------------------------------
const         433.7185      2.777    156.201      0.000     428.251     439.186
x1              1.6897      3.446      0.490      0.624      -5.097       8.476
x2             -1.9731      3.337     -0.591      0.555      -8.544       4.597
x3              0.2278      3.130      0.073      0.942      -5.936       6.391
x4             -2.5572      4.031     -0.634      0.526     -10.494       5.379
===============================================================
==================
Omnibus:                       32.370    Durbin-Watson:              0.037
Prob(Omnibus):                  0.000    Jarque-Bera (JB):          41.284
Skew:                           0.962    Prob(JB):                1.08e-09
Kurtosis:                       3.156    Cond. No.                    2.60
===============================================================
==================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y		R-squared:			0.008
Model:	OLS		Adj. R-squared:			-0.007
Method:	Least Squares		F-statistic:			0.5208
Date:	Sat, 09 Nov 2024		Prob (F-statistic):			0.721
Time:	03:37:50		Log-Likelihood:			-1371.6
No. Observations:	266		AIC:			2753.
Df Residuals:	261		BIC:			2771.
Df Model:	4					
Covariance Type:	nonrobust					

	coef	std err	t	P>|t|	[0.025	0.975]
const	270.0980	2.599	103.917	0.000	264.980	275.216
x1	2.7784	3.226	0.861	0.390	-3.574	9.131
x2	1.3546	3.124	0.434	0.665	-4.796	7.505
x3	-0.5298	2.930	-0.181	0.857	-6.299	5.240
x4	-0.0413	3.773	-0.011	0.991	-7.471	7.388

Omnibus:	19.302	Durbin-Watson:		0.019
Prob(Omnibus):	0.000	Jarque-Bera (JB):		7.769
Skew:	-0.137	Prob(JB):		0.0206
Kurtosis:	2.209	Cond. No.		2.60

Notes:

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

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.007
Model:	OLS	Adj. R-squared:	-0.009
Method:	Least Squares	F-statistic:	0.4378
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.781
Time:	03:37:50	Log-Likelihood:	-885.34
No. Observations:	266	AIC:	1781.
Df Residuals:	261	BIC:	1799.
Df Model:	4		

Covariance Type: nonrobust
==
==================
                coef   std err   t   P>|t| [0.025   0.975]
----
const   162.6021   0.418   389.225   0.000   161.779   163.425
x1   0.1311   0.519   0.253   0.801   -0.890   1.152
x2   -0.0485   0.502   -0.097   0.923   -1.037   0.940
x3   0.5226   0.471   1.110   0.268   -0.405   1.450
x4   -0.4785   0.606   -0.789   0.431   -1.673   0.716
==
==================
Omnibus: 16.201   Durbin-Watson: 0.078
Prob(Omnibus):   0.000   Jarque-Bera (JB):   7.171
Skew: 0.146   Prob(JB):   0.0277
Kurtosis: 2.251   Cond. No.   2.60
==
==================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for JPM

                        OLS Regression Results
==
==================
Dep. Variable: y   R-squared: 0.007
Model: OLS   Adj. R-squared: -0.008
Method: Least Squares   F-statistic: 0.4624
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.763
Time: 03:37:50   Log-Likelihood: -1057.7
No. Observations: 266   AIC: 2125.
Df Residuals: 261   BIC: 2143.
Df Model: 4
Covariance Type: nonrobust
==
==================
                coef   std err   t   P>|t| [0.025   0.975]
----
const   134.0815   0.799   167.889   0.000   132.509   135.654
x1   0.4557   0.991   0.460   0.646   -1.496   2.408
x2   -0.3633   0.960   -0.379   0.705   -2.253   1.527
x3   -0.2242   0.900   -0.249   0.804   -1.997   1.549
x4   -0.7824   1.159   -0.675   0.500   -3.065   1.500
==

```
====================
Omnibus:                      11.824    Durbin-Watson:                  0.027
Prob(Omnibus):                 0.003    Jarque-Bera (JB):              12.427
Skew:                         -0.529    Prob(JB):                     0.00200
Kurtosis:                      3.062    Cond. No.                        2.60
============================================================
====================
```

Notes:

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

OLS Regression Results

```
============================================================
====================
Dep. Variable:                      y    R-squared:                      0.018
Model:                            OLS    Adj. R-squared:                 0.003
Method:                 Least Squares    F-statistic:                    1.217
Date:                Sat, 09 Nov 2024    Prob (F-statistic):             0.304
Time:                        03:37:50    Log-Likelihood:                -589.32
No. Observations:                 266    AIC:                            1189.
Df Residuals:                     261    BIC:                            1207.
Df Model:                           4
Covariance Type:            nonrobust
============================================================
====================
                 coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------
const         59.6350      0.137    434.397      0.000      59.365      59.905
x1             0.1089      0.170      0.639      0.523      -0.227       0.444
x2             0.0311      0.165      0.189      0.851      -0.294       0.356
x3            -0.2569      0.155     -1.660      0.098      -0.562       0.048
x4             0.0306      0.199      0.154      0.878      -0.362       0.423
============================================================
====================
Omnibus:                      26.104    Durbin-Watson:                  0.069
Prob(Omnibus):                 0.000    Jarque-Bera (JB):              30.932
Skew:                         -0.768    Prob(JB):                     1.92e-07
Kurtosis:                      3.655    Cond. No.                        2.60
============================================================
====================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y		R-squared:			0.010
Model:	OLS		Adj. R-squared:			-0.005
Method:	Least Squares		F-statistic:			0.6498
Date:	Sat, 09 Nov 2024		Prob (F-statistic):			0.627
Time:	03:37:50		Log-Likelihood:			-1324.3
No. Observations:	266		AIC:			2659.
Df Residuals:	261		BIC:			2676.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	339.8335	2.175	156.215	0.000	335.550	344.117
x1	1.9755	2.700	0.732	0.465	-3.341	7.292
x2	-1.8601	2.614	-0.712	0.477	-7.008	3.288
x3	-2.5411	2.452	-1.036	0.301	-7.370	2.288
x4	0.1801	3.158	0.057	0.955	-6.038	6.398

==

Omnibus:	23.015	Durbin-Watson:	0.027
Prob(Omnibus):	0.000	Jarque-Bera (JB):	17.612
Skew:	-0.528	Prob(JB):	0.000150
Kurtosis:	2.312	Cond. No.	2.60

==

Notes:

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

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.001
Model:	OLS	Adj. R-squared:	-0.014
Method:	Least Squares	F-statistic:	0.08595
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.987
Time:	03:37:50	Log-Likelihood:	-1534.5
No. Observations:	266	AIC:	3079.
Df Residuals:	261	BIC:	3097.
Df Model:	4		

Covariance Type: nonrobust
==

                  coef   std err   t   P>|t| [0.025   0.975]
----
const   394.7441   4.796   82.312   0.000   385.301   404.187
x1   0.8043   5.952   0.135   0.893   -10.916   12.525
x2   -3.3294   5.763   -0.578   0.564   -14.678   8.019
x3   0.5621   5.406   0.104   0.917   -10.083   11.207
x4   -1.7445   6.961   -0.251   0.802   -15.452   11.963
==

Omnibus: 32.322   Durbin-Watson: 0.011
Prob(Omnibus):   0.000   Jarque-Bera (JB):   41.813
Skew: 0.971   Prob(JB):   8.33e-10
Kurtosis: 2.950   Cond. No.   2.60
==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for LMT
                        OLS Regression Results
==
Dep. Variable: y   R-squared: 0.014
Model: OLS   Adj. R-squared: -0.001
Method: Least Squares   F-statistic: 0.9213
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.452
Time: 03:37:50   Log-Likelihood: -1225.8
No. Observations: 266   AIC: 2462.
Df Residuals: 261   BIC: 2479.
Df Model: 4
Covariance Type: nonrobust
==

                  coef   std err   t   P>|t| [0.025   0.975]
----
const   450.5777   1.502   299.944   0.000   447.620   453.536
x1   2.7731   1.865   1.487   0.138   -0.898   6.445
x2   -0.8729   1.805   -0.484   0.629   -4.428   2.682
x3   -1.5953   1.693   -0.942   0.347   -4.930   1.739
x4   1.5257   2.181   0.700   0.485   -2.768   5.819
==

```
===================
Omnibus:                      36.163   Durbin-Watson:                 0.060
Prob(Omnibus):                 0.000   Jarque-Bera (JB):             46.636
Skew:                         -0.996   Prob(JB):                   7.47e-11
Kurtosis:                      3.489   Cond. No.                       2.60
===============================================================
===================
```

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for LOW

OLS Regression Results
```
===============================================================
===================
Dep. Variable:                     y   R-squared:                     0.007
Model:                           OLS   Adj. R-squared:               -0.008
Method:                Least Squares   F-statistic:                  0.4893
Date:               Sat, 09 Nov 2024   Prob (F-statistic):            0.744
Time:                       03:37:50   Log-Likelihood:               -1074.0
No. Observations:                266   AIC:                           2158.
Df Residuals:                    261   BIC:                           2176.
Df Model:                          4
Covariance Type:            nonrobust
===============================================================
===================
                 coef    std err          t      P>|t|      [0.025      0.975]
-------------------------------------------------------------------------------
const         205.9135      0.849    242.528      0.000     204.242     207.585
x1              0.5679      1.054      0.539      0.590      -1.507       2.643
x2              0.2817      1.020      0.276      0.783      -1.727       2.291
x3              0.0082      0.957      0.009      0.993      -1.876       1.893
x4             -0.5800      1.232     -0.471      0.638      -3.007       1.847
===============================================================
===================
Omnibus:                      14.196   Durbin-Watson:                 0.055
Prob(Omnibus):                 0.001   Jarque-Bera (JB):             10.028
Skew:                          0.356   Prob(JB):                    0.00665
Kurtosis:                      2.369   Cond. No.                       2.60
===============================================================
===================
```

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for LRCX

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y	R-squared:				0.007
Model:	OLS	Adj. R-squared:				-0.008
Method:	Least Squares	F-statistic:				0.4713
Date:	Sat, 09 Nov 2024	Prob (F-statistic):				0.757
Time:	03:37:50	Log-Likelihood:				-1604.1
No. Observations:	266	AIC:				3218.
Df Residuals:	261	BIC:				3236.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	517.3147	6.228	83.058	0.000	505.050	529.579
x1	4.2166	7.731	0.545	0.586	-11.006	19.439
x2	-3.4542	7.485	-0.461	0.645	-18.193	11.284
x3	-5.1544	7.021	-0.734	0.464	-18.979	8.671
x4	-2.4095	9.041	-0.267	0.790	-20.212	15.393

==

Omnibus:	41.108	Durbin-Watson:	0.018
Prob(Omnibus):	0.000	Jarque-Bera (JB):	12.235
Skew:	0.220	Prob(JB):	0.00220
Kurtosis:	2.045	Cond. No.	2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for MA

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.011
Model:	OLS	Adj. R-squared:	-0.004
Method:	Least Squares	F-statistic:	0.7091
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.586
Time:	03:37:50	Log-Likelihood:	-1304.2
No. Observations:	266	AIC:	2618.
Df Residuals:	261	BIC:	2636.
Df Model:	4		

Covariance Type: nonrobust
===

	coef	std err	t	P>|t|	[0.025	0.975]
const	361.3817	2.017	179.125	0.000	357.409	365.354
x1	0.6248	2.504	0.250	0.803	-4.306	5.556
x2	-0.8203	2.425	-0.338	0.735	-5.594	3.954
x3	-1.9201	2.274	-0.844	0.399	-6.398	2.558
x4	-1.9740	2.929	-0.674	0.501	-7.741	3.793

===

Omnibus:	12.457	Durbin-Watson:	0.028
Prob(Omnibus):	0.002	Jarque-Bera (JB):	13.327
Skew:	-0.533	Prob(JB):	0.00128
Kurtosis:	2.743	Cond. No.	2.60

===

Notes:

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

OLS Regression Results

===

Dep. Variable:	y	R-squared:	0.012
Model:	OLS	Adj. R-squared:	-0.003
Method:	Least Squares	F-statistic:	0.7935
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.530
Time:	03:37:50	Log-Likelihood:	-1125.6
No. Observations:	266	AIC:	2261.
Df Residuals:	261	BIC:	2279.
Df Model:	4		
Covariance Type:	nonrobust		

===

	coef	std err	t	P>|t|	[0.025	0.975]
const	271.5812	1.031	263.416	0.000	269.551	273.611
x1	1.6931	1.280	1.323	0.187	-0.827	4.213
x2	-0.6059	1.239	-0.489	0.625	-3.046	1.834
x3	-1.0021	1.162	-0.862	0.389	-3.291	1.286
x4	0.6494	1.497	0.434	0.665	-2.298	3.596

===

```
==================
Omnibus:                        13.195    Durbin-Watson:                   0.027
Prob(Omnibus):                   0.001    Jarque-Bera (JB):               14.130
Skew:                           -0.547    Prob(JB):                     0.000855
Kurtosis:                        2.719    Cond. No.                         2.60
================================================================
==================
```

Notes:

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

                        OLS Regression Results

```
================================================================
==================
Dep. Variable:                       y    R-squared:                       0.010
Model:                             OLS    Adj. R-squared:                 -0.005
Method:                  Least Squares    F-statistic:                    0.6607
Date:                 Sat, 09 Nov 2024    Prob (F-statistic):              0.620
Time:                         03:37:50    Log-Likelihood:                 -846.10
No. Observations:                  266    AIC:                             1702.
Df Residuals:                      261    BIC:                             1720.
Df Model:                            4
Covariance Type:             nonrobust
================================================================
==================
                 coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------
const         67.4973      0.360    187.250      0.000      66.788      68.207
x1             0.2376      0.447      0.531      0.596      -0.643       1.119
x2             0.0135      0.433      0.031      0.975      -0.839       0.867
x3            -0.5248      0.406     -1.292      0.198      -1.325       0.275
x4             0.1191      0.523      0.228      0.820      -0.911       1.149
================================================================
==================
Omnibus:                        17.962    Durbin-Watson:                   0.026
Prob(Omnibus):                   0.000    Jarque-Bera (JB):               10.406
Skew:                           -0.324    Prob(JB):                      0.00550
Kurtosis:                        2.280    Cond. No.                         2.60
================================================================
==================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y		R-squared:			0.013

Dep. Variable:	y	R-squared:	0.013
Model:	OLS	Adj. R-squared:	-0.002
Method:	Least Squares	F-statistic:	0.8693
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.483
Time:	03:37:50	Log-Likelihood:	-742.66
No. Observations:	266	AIC:	1495.
Df Residuals:	261	BIC:	1513.
Df Model:	4		
Covariance Type:	nonrobust		

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	81.6529	0.244	334.195	0.000	81.172	82.134
x1	0.3499	0.303	1.154	0.250	-0.247	0.947
x2	0.3485	0.294	1.187	0.236	-0.230	0.927
x3	0.1915	0.275	0.695	0.487	-0.351	0.734
x4	0.3276	0.355	0.924	0.356	-0.371	1.026

==

Omnibus:	23.790	Durbin-Watson:	0.103
Prob(Omnibus):	0.000	Jarque-Bera (JB):	9.125
Skew:	0.180	Prob(JB):	0.0104
Kurtosis:	2.167	Cond. No.	2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for META

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.002
Model:	OLS	Adj. R-squared:	-0.013
Method:	Least Squares	F-statistic:	0.1251
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.973
Time:	03:37:50	Log-Likelihood:	-1513.6
No. Observations:	266	AIC:	3037.
Df Residuals:	261	BIC:	3055.
Df Model:	4		

Covariance Type: nonrobust
==
                    coef   std err   t   P>|t| [0.025   0.975]
----
const   202.5755   4.433   45.693   0.000   193.846   211.305
x1   1.5988   5.503   0.291   0.772   -9.237   12.434
x2   -1.8878   5.328   -0.354   0.723   -12.379   8.603
x3   -2.4477   4.998   -0.490   0.625   -12.289   7.393
x4   0.8976   6.436   0.139   0.889   -11.775   13.570
==
Omnibus: 1523.494   Durbin-Watson: 0.008
Prob(Omnibus):   0.000   Jarque-Bera (JB):   23.884
Skew: 0.187   Prob(JB):   6.51e-06
Kurtosis: 1.580   Cond. No.   2.60
==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for MMC
                    OLS Regression Results
==
Dep. Variable: y   R-squared: 0.005
Model: OLS   Adj. R-squared: -0.010
Method: Least Squares   F-statistic: 0.3398
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.851
Time: 03:37:50   Log-Likelihood: -1063.5
No. Observations: 266   AIC: 2137.
Df Residuals: 261   BIC: 2155.
Df Model: 4
Covariance Type: nonrobust
==
                    coef   std err   t   P>|t| [0.025   0.975]
----
const   171.9946   0.816   210.690   0.000   170.387   173.602
x1   0.6044   1.013   0.597   0.551   -1.391   2.600
x2   -0.4428   0.981   -0.451   0.652   -2.375   1.489
x3   -0.0349   0.920   -0.038   0.970   -1.847   1.777
x4   -0.6145   1.185   -0.519   0.604   -2.948   1.719
==

==================

Omnibus:	32.178	Durbin-Watson:	0.019
Prob(Omnibus):	0.000	Jarque-Bera (JB):	11.426
Skew:	0.240	Prob(JB):	0.00330
Kurtosis:	2.105	Cond. No.	2.60

==
==================

Notes:

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

OLS Regression Results

==
==================

Dep. Variable:	y	R-squared:	0.013
Model:	OLS	Adj. R-squared:	-0.002
Method:	Least Squares	F-statistic:	0.8536
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.492
Time:	03:37:50	Log-Likelihood:	-944.87
No. Observations:	266	AIC:	1900.
Df Residuals:	261	BIC:	1918.
Df Model:	4		
Covariance Type:	nonrobust		

==
==================

	coef	std err	t	P>|t|	[0.025	0.975]
const	104.5000	0.523	199.984	0.000	103.471	105.529
x1	0.4254	0.649	0.656	0.512	-0.852	1.702
x2	0.0461	0.628	0.073	0.942	-1.190	1.283
x3	-0.8929	0.589	-1.516	0.131	-2.053	0.267
x4	0.3230	0.759	0.426	0.671	-1.171	1.817

==
==================

Omnibus:	51.817	Durbin-Watson:	0.042
Prob(Omnibus):	0.000	Jarque-Bera (JB):	76.100
Skew:	-1.255	Prob(JB):	2.99e-17
Kurtosis:	3.752	Cond. No.	2.60

==
==================

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]

Dep. Variable:	y	R-squared:				0.015
Model:	OLS	Adj. R-squared:				0.000
Method:	Least Squares	F-statistic:				1.020
Date:	Sat, 09 Nov 2024	Prob (F-statistic):				0.397
Time:	03:37:50	Log-Likelihood:				-818.44
No. Observations:	266	AIC:				1647.
Df Residuals:	261	BIC:				1665.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	86.0981	0.325	265.029	0.000	85.458	86.738
x1	-0.1798	0.403	-0.446	0.656	-0.974	0.614
x2	-0.1543	0.390	-0.395	0.693	-0.923	0.614
x3	-0.2755	0.366	-0.752	0.452	-0.997	0.446
x4	-0.6411	0.472	-1.359	0.175	-1.570	0.287

==

Omnibus:	4.857	Durbin-Watson:	0.093
Prob(Omnibus):	0.088	Jarque-Bera (JB):	4.592
Skew:	0.314	Prob(JB):	0.101
Kurtosis:	3.140	Cond. No.	2.60

==

Notes:

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

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.005
Model:	OLS	Adj. R-squared:	-0.010
Method:	Least Squares	F-statistic:	0.3548
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.841
Time:	03:37:50	Log-Likelihood:	-1365.8
No. Observations:	266	AIC:	2742.
Df Residuals:	261	BIC:	2760.
Df Model:	4		

Covariance Type: nonrobust
==

                 coef   std err   t   P>|t| [0.025   0.975]
----
const   279.9654   2.544   110.069   0.000   274.957   284.974
x1   2.7662   3.157   0.876   0.382   -3.450   8.983
x2   -1.0189   3.057   -0.333   0.739   -7.038   5.000
x3   -1.3729   2.867   -0.479   0.632   -7.019   4.273
x4   0.4588   3.692   0.124   0.901   -6.811   7.729
==

Omnibus: 3254.640   Durbin-Watson: 0.012
Prob(Omnibus):   0.000   Jarque-Bera (JB):   28.198
Skew: 0.246   Prob(JB):   7.53e-07
Kurtosis: 1.483   Cond. No.   2.60
==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for NEE

                          OLS Regression Results
==
Dep. Variable: y   R-squared: 0.008
Model: OLS   Adj. R-squared: -0.007
Method: Least Squares   F-statistic: 0.5367
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.709
Time: 03:37:50   Log-Likelihood: -817.18
No. Observations: 266   AIC: 1644.
Df Residuals: 261   BIC: 1662.
Df Model: 4
Covariance Type: nonrobust
==

                 coef   std err   t   P>|t| [0.025   0.975]
----
const   75.5264   0.323   233.589   0.000   74.890   76.163
x1   0.0137   0.401   0.034   0.973   -0.776   0.804
x2   0.3870   0.389   0.996   0.320   -0.378   1.152
x3   -0.1130   0.364   -0.310   0.757   -0.831   0.605
x4   -0.0677   0.469   -0.144   0.885   -0.992   0.856
==

```
===================
Omnibus:                        13.320    Durbin-Watson:                  0.058
Prob(Omnibus):                   0.001    Jarque-Bera (JB):               9.121
Skew:                            0.326    Prob(JB):                      0.0105
Kurtosis:                        2.369    Cond. No.                        2.60
================================================================
===================
```

Notes:

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

<div align="center">OLS Regression Results</div>

```
================================================================
===================
Dep. Variable:                       y    R-squared:                      0.006
Model:                             OLS    Adj. R-squared:                -0.009
Method:                  Least Squares    F-statistic:                    0.4093
Date:                 Sat, 09 Nov 2024    Prob (F-statistic):             0.802
Time:                         03:37:50    Log-Likelihood:                -1493.8
No. Observations:                  266    AIC:                            2998.
Df Residuals:                      261    BIC:                            3016.
Df Model:                            4
Covariance Type:             nonrobust
================================================================
===================
                 coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------
const        341.0152      4.115     82.869      0.000     332.912     349.118
x1             3.5628      5.108      0.698      0.486      -6.495      13.620
x2            -2.0425      4.945     -0.413      0.680     -11.780       7.695
x3             0.4227      4.639      0.091      0.927      -8.712       9.557
x4            -3.3922      5.973     -0.568      0.571     -15.154       8.370
================================================================
===================
Omnibus:                        45.212    Durbin-Watson:                  0.021
Prob(Omnibus):                   0.000    Jarque-Bera (JB):              10.891
Skew:                            0.050    Prob(JB):                     0.00431
Kurtosis:                        2.014    Cond. No.                        2.60
================================================================
===================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y	R-squared:				0.041
Model:	OLS	Adj. R-squared:				0.026
Method:	Least Squares	F-statistic:				2.792
Date:	Sat, 09 Nov 2024	Prob (F-statistic):				0.0268
Time:	03:37:50	Log-Likelihood:				-1023.2
No. Observations:	266	AIC:				2056.
Df Residuals:	261	BIC:				2074.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	109.6831	0.701	156.369	0.000	108.302	111.064
x1	-0.0604	0.871	-0.069	0.945	-1.775	1.654
x2	0.4711	0.843	0.559	0.577	-1.189	2.131
x3	-2.1028	0.791	-2.659	0.008	-3.660	-0.546
x4	-0.2338	1.018	-0.230	0.819	-2.239	1.771

==

Omnibus:	22.418	Durbin-Watson:	0.101
Prob(Omnibus):	0.000	Jarque-Bera (JB):	10.435
Skew:	-0.277	Prob(JB):	0.00542
Kurtosis:	2.203	Cond. No.	2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for NOW

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.002
Model:	OLS	Adj. R-squared:	-0.013
Method:	Least Squares	F-statistic:	0.1484
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.964
Time:	03:37:50	Log-Likelihood:	-1517.2
No. Observations:	266	AIC:	3044.
Df Residuals:	261	BIC:	3062.
Df Model:	4		

Covariance Type: nonrobust
==
                 coef   std err   t   P>|t| [0.025   0.975]
----
const   468.4049   4.493   104.257   0.000   459.558   477.252
x1   1.5949   5.576   0.286   0.775   -9.385   12.575
x2   -1.4795   5.399   -0.274   0.784   -12.111   9.152
x3   -0.0224   5.065   -0.004   0.996   -9.995   9.950
x4   -2.8685   6.522   -0.440   0.660   -15.710   9.973
==
Omnibus: 143.175   Durbin-Watson: 0.019
Prob(Omnibus):   0.000   Jarque-Bera (JB):   21.019
Skew: 0.337   Prob(JB):   2.73e-05
Kurtosis: 1.799   Cond. No.   2.60
==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for NVDA
                         OLS Regression Results
==
Dep. Variable: y   R-squared: 0.003
Model: OLS   Adj. R-squared: -0.012
Method: Least Squares   F-statistic: 0.2036
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.936
Time: 03:37:50   Log-Likelihood: -1657.2
No. Observations: 266   AIC: 3324.
Df Residuals: 261   BIC: 3342.
Df Model: 4
Covariance Type: nonrobust
==
                 coef   std err   t   P>|t| [0.025   0.975]
----
const   271.0011   7.605   35.634   0.000   256.026   285.976
x1   4.5322   9.439   0.480   0.632   -14.055   23.119
x2   -5.6760   9.140   -0.621   0.535   -23.673   12.321
x3   -3.3256   8.573   -0.388   0.698   -20.207   13.556
x4   0.5753   11.040   0.052   0.958   -21.163   22.313
==

```
==================
Omnibus:                        408.701    Durbin-Watson:              0.008
Prob(Omnibus):                    0.000    Jarque-Bera (JB):          27.257
Skew:                             0.408    Prob(JB):                1.21e-06
Kurtosis:                         1.661    Cond. No.                    2.60
===========================================================================
==================
```

Notes:

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

OLS Regression Results

```
===========================================================================
==================
Dep. Variable:                       y    R-squared:                   0.005
Model:                             OLS    Adj. R-squared:             -0.010
Method:                  Least Squares    F-statistic:                0.3134
Date:                 Sat, 09 Nov 2024    Prob (F-statistic):          0.869
Time:                         03:37:50    Log-Likelihood:             -1142.0
No. Observations:                  266    AIC:                          2294.
Df Residuals:                      261    BIC:                          2312.
Df Model:                            4
Covariance Type:              nonrobust
===========================================================================
==================
                 coef     std err          t      P>|t|      [0.025      0.975]
---------------------------------------------------------------------------
const         92.8848       1.097     84.704      0.000      90.726      95.044
x1             0.7814       1.361      0.574      0.566      -1.899       3.461
x2            -0.7957       1.318     -0.604      0.547      -3.391       1.799
x3            -0.6456       1.236     -0.522      0.602      -3.080       1.788
x4            -0.1942       1.592     -0.122      0.903      -3.329       2.940
===========================================================================
==================
Omnibus:                         70.888    Durbin-Watson:              0.014
Prob(Omnibus):                    0.000    Jarque-Bera (JB):          14.297
Skew:                             0.183    Prob(JB):                0.000786
Kurtosis:                         1.925    Cond. No.                    2.60
===========================================================================
==================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y	R-squared:				0.015
Model:	OLS	Adj. R-squared:				-0.000
Method:	Least Squares	F-statistic:				0.9957
Date:	Sat, 09 Nov 2024	Prob (F-statistic):				0.410
Time:	03:37:50	Log-Likelihood:				-919.97
No. Observations:	266	AIC:				1850.
Df Residuals:	261	BIC:				1868.
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	176.8001	0.476	371.546	0.000	175.863	177.737
x1	1.0368	0.591	1.755	0.080	-0.126	2.200
x2	-0.1373	0.572	-0.240	0.810	-1.263	0.989
x3	-0.3357	0.536	-0.626	0.532	-1.392	0.721
x4	0.4606	0.691	0.667	0.506	-0.900	1.821

==

Omnibus:	6.054	Durbin-Watson:	0.045
Prob(Omnibus):	0.048	Jarque-Bera (JB):	4.547
Skew:	-0.201	Prob(JB):	0.103
Kurtosis:	2.501	Cond. No.	2.60

==

Notes:

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

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.004
Model:	OLS	Adj. R-squared:	-0.012
Method:	Least Squares	F-statistic:	0.2311
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.921
Time:	03:37:50	Log-Likelihood:	-783.59
No. Observations:	266	AIC:	1577.
Df Residuals:	261	BIC:	1595.
Df Model:	4		

Covariance Type: nonrobust
==

                 coef   std err   t   P>|t| [0.025   0.975]
----
const   40.9168   0.285   143.583   0.000   40.356   41.478
x1   0.0705   0.354   0.199   0.842   -0.626   0.767
x2   0.1586   0.342   0.463   0.644   -0.516   0.833
x3   0.1752   0.321   0.545   0.586   -0.457   0.808
x4   -0.1136   0.414   -0.275   0.784   -0.928   0.701
==

Omnibus: 19.277   Durbin-Watson: 0.021
Prob(Omnibus):   0.000   Jarque-Bera (JB):   14.813
Skew: 0.477   Prob(JB):   0.000607
Kurtosis: 2.347   Cond. No.   2.60
==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for PG
                          OLS Regression Results
==

Dep. Variable: y   R-squared: 0.009
Model: OLS   Adj. R-squared: -0.006
Method: Least Squares   F-statistic: 0.5874
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.672
Time: 03:37:50   Log-Likelihood: -961.86
No. Observations: 266   AIC: 1934.
Df Residuals: 261   BIC: 1952.
Df Model: 4
Covariance Type: nonrobust
==

                 coef   std err   t   P>|t| [0.025   0.975]
----
const   144.1040   0.557   258.716   0.000   143.007   145.201
x1   0.0316   0.691   0.046   0.964   -1.330   1.393
x2   -0.1560   0.669   -0.233   0.816   -1.474   1.162
x3   -0.8185   0.628   -1.304   0.194   -2.055   0.418
x4   -0.0955   0.809   -0.118   0.906   -1.688   1.497
==

```
===================

Omnibus:                         19.339    Durbin-Watson:                    0.035
Prob(Omnibus):                    0.000    Jarque-Bera (JB):                20.125
Skew:                            -0.633    Prob(JB):                      4.27e-05
Kurtosis:                         2.541    Cond. No.                         2.60
============================================================================
===================
```

Notes:

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

OLS Regression Results

```
============================================================================
===================
Dep. Variable:                        y    R-squared:                       0.007
Model:                              OLS    Adj. R-squared:                 -0.008
Method:                   Least Squares    F-statistic:                    0.4715
Date:                 Sat, 09 Nov 2024    Prob (F-statistic):              0.757
Time:                         03:37:50    Log-Likelihood:                 -894.42
No. Observations:                  266    AIC:                             1799.
Df Residuals:                      261    BIC:                             1817.
Df Model:                            4
Covariance Type:               nonrobust
============================================================================
===================
                 coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------
const        131.5068      0.432    304.231      0.000     130.656     132.358
x1             0.1940      0.537      0.362      0.718      -0.862       1.250
x2            -0.4348      0.519     -0.837      0.403      -1.458       0.588
x3            -0.3986      0.487     -0.818      0.414      -1.358       0.561
x4            -0.1546      0.627     -0.246      0.806      -1.390       1.081
============================================================================
===================
Omnibus:                          3.404    Durbin-Watson:                    0.141
Prob(Omnibus):                    0.182    Jarque-Bera (JB):                3.084
Skew:                             0.188    Prob(JB):                        0.214
Kurtosis:                         2.630    Cond. No.                         2.60
============================================================================
===================
```

Notes:

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

OLS Regression Results

==

Dep. Variable: y   R-squared: 0.032
Model: OLS   Adj. R-squared: 0.018
Method: Least Squares   F-statistic: 2.189
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.0706
Time: 03:37:50   Log-Likelihood: -912.35
No. Observations: 266   AIC: 1835.
Df Residuals: 261   BIC: 1853.
Df Model: 4
Covariance Type: nonrobust

==

                 coef   std err   t   P>|t| [0.025   0.975]
----
const   117.4491   0.462   253.991   0.000   116.539   118.360
x1   0.2605   0.574   0.454   0.650   -0.870   1.391
x2   0.1328   0.556   0.239   0.811   -0.961   1.227
x3   -0.7731   0.521   -1.483   0.139   -1.800   0.253
x4   -0.5788   0.671   -0.862   0.389   -1.901   0.743

==

Omnibus: 32.751   Durbin-Watson: 0.085
Prob(Omnibus):   0.000   Jarque-Bera (JB):   42.018
Skew: -0.971   Prob(JB):   7.52e-10
Kurtosis: 3.131   Cond. No.   2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for PM

OLS Regression Results

==

Dep. Variable: y   R-squared: 0.011
Model: OLS   Adj. R-squared: -0.004
Method: Least Squares   F-statistic: 0.7462
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.561
Time: 03:37:51   Log-Likelihood: -799.41
No. Observations: 266   AIC: 1609.
Df Residuals: 261   BIC: 1627.
Df Model: 4

Covariance Type: nonrobust
==

	coef	std err	t	P>|t|	[0.025	0.975]
const	94.2404	0.302	311.609	0.000	93.645	94.836
x1	-0.1706	0.375	-0.455	0.650	-0.910	0.569
x2	0.0269	0.363	0.074	0.941	-0.689	0.743
x3	-0.3893	0.341	-1.142	0.255	-1.061	0.282
x4	-0.2897	0.439	-0.660	0.510	-1.154	0.575

==

Omnibus:	31.988	Durbin-Watson:	0.076
Prob(Omnibus):	0.000	Jarque-Bera (JB):	40.405
Skew:	-0.948	Prob(JB):	1.68e-09
Kurtosis:	3.223	Cond. No.	2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for QCOM
                        OLS Regression Results
==

Dep. Variable:	y	R-squared:	0.018
Model:	OLS	Adj. R-squared:	0.003
Method:	Least Squares	F-statistic:	1.184
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.318
Time:	03:37:51	Log-Likelihood:	-897.82
No. Observations:	266	AIC:	1806.
Df Residuals:	261	BIC:	1824.
Df Model:	4		
Covariance Type:	nonrobust		

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	116.8624	0.438	266.911	0.000	116.000	117.724
x1	0.5159	0.543	0.949	0.343	-0.554	1.586
x2	0.1571	0.526	0.299	0.765	-0.879	1.193
x3	-0.2631	0.494	-0.533	0.594	-1.235	0.709
x4	-0.2940	0.636	-0.463	0.644	-1.545	0.957

==

```
===================
Omnibus:                         3.415    Durbin-Watson:                    0.119
Prob(Omnibus):                   0.181    Jarque-Bera (JB):                 2.407
Skew:                            0.025    Prob(JB):                         0.300
Kurtosis:                        2.537    Cond. No.                         2.60
==============================================================
===================
```

Notes:

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

OLS Regression Results

```
==============================================================
===================
Dep. Variable:                      y    R-squared:                        0.018
Model:                            OLS    Adj. R-squared:                   0.002
Method:                 Least Squares    F-statistic:                      1.163
Date:                Sat, 09 Nov 2024    Prob (F-statistic):               0.327
Time:                        03:37:51    Log-Likelihood:                  -1383.3
No. Observations:                 266    AIC:                              2777.
Df Residuals:                     261    BIC:                              2794.
Df Model:                           4
Covariance Type:            nonrobust
==============================================================
===================
                 coef    std err          t      P>|t|      [0.025      0.975]
--------------------------------------------------------------------------------
const         754.4051      2.716    277.792      0.000     749.058     759.753
x1              4.1167      3.371      1.221      0.223      -2.520      10.754
x2             -4.6778      3.264     -1.433      0.153     -11.104       1.749
x3             -2.3387      3.061     -0.764      0.446      -8.367       3.689
x4              2.5101      3.942      0.637      0.525      -5.252      10.272
==============================================================
===================
Omnibus:                        20.064    Durbin-Watson:                    0.123
Prob(Omnibus):                   0.000    Jarque-Bera (JB):                45.587
Skew:                           -0.336    Prob(JB):                      1.26e-10
Kurtosis:                        4.913    Cond. No.                         2.60
==============================================================
===================
```

Notes:

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

OLS Regression Results

===

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y	R-squared:				0.004
Model:	OLS	Adj. R-squared:				-0.012
Method:	Least Squares	F-statistic:				0.2314
Date:	Sat, 09 Nov 2024	Prob (F-statistic):				0.921
Time:	03:37:51	Log-Likelihood:				1122.6
No. Observations:	266	AIC:				-2235.
Df Residuals:	261	BIC:				-2217.
Df Model:	4					
Covariance Type:	nonrobust					

===

	coef	std err	t	P>|t|	[0.025	0.975]
const	0.0166	0.000	75.291	0.000	0.016	0.017
x1	-3.499e-05	0.000	-0.128	0.898	-0.001	0.001
x2	-0.0001	0.000	-0.478	0.633	-0.001	0.000
x3	3.223e-05	0.000	0.130	0.897	-0.000	0.001
x4	-0.0003	0.000	-0.883	0.378	-0.001	0.000

===

Omnibus:	15.165	Durbin-Watson:	0.021
Prob(Omnibus):	0.001	Jarque-Bera (JB):	16.559
Skew:	-0.596	Prob(JB):	0.000254
Kurtosis:	2.726	Cond. No.	2.60

===

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for RTX

OLS Regression Results

===

Dep. Variable:	y	R-squared:	0.022
Model:	OLS	Adj. R-squared:	0.007
Method:	Least Squares	F-statistic:	1.492
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.205
Time:	03:37:51	Log-Likelihood:	-883.86
No. Observations:	266	AIC:	1778.
Df Residuals:	261	BIC:	1796.
Df Model:	4		

Covariance Type: nonrobust
==
==================

                coef   std err   t   P>|t| [0.025   0.975]
----
const   92.3759   0.415   222.361   0.000   91.558   93.194
x1   0.8082   0.516   1.567   0.118   -0.207   1.824
x2   0.3675   0.499   0.736   0.462   -0.616   1.351
x3   -0.4757   0.468   -1.016   0.311   -1.398   0.446
x4   0.3752   0.603   0.622   0.534   -0.812   1.563
==
==================
Omnibus: 28.419   Durbin-Watson: 0.064
Prob(Omnibus):   0.000   Jarque-Bera (JB):   35.433
Skew: -0.889   Prob(JB):   2.02e-08
Kurtosis: 2.813   Cond. No.   2.60
==
==================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for SBUX
                        OLS Regression Results
==
==================
Dep. Variable: y   R-squared: 0.034
Model: OLS   Adj. R-squared: 0.019
Method: Least Squares   F-statistic: 2.280
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.0612
Time: 03:37:51   Log-Likelihood: -889.65
No. Observations: 266   AIC: 1789.
Df Residuals: 261   BIC: 1807.
Df Model: 4
Covariance Type: nonrobust
==
==================

                coef   std err   t   P>|t| [0.025   0.975]
----
const   98.1743   0.425   231.224   0.000   97.338   99.010
x1   0.2434   0.527   0.462   0.645   -0.794   1.281
x2   0.1777   0.510   0.348   0.728   -0.827   1.182
x3   -1.1209   0.479   -2.342   0.020   -2.063   -0.178
x4   -0.0083   0.616   -0.013   0.989   -1.222   1.205
==

```
===================
Omnibus:                        18.806    Durbin-Watson:                    0.085
Prob(Omnibus):                   0.000    Jarque-Bera (JB):                21.435
Skew:                           -0.695    Prob(JB):                      2.22e-05
Kurtosis:                        2.953    Cond. No.                         2.60
================================================================
===================
```

Notes:

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

OLS Regression Results

```
================================================================
===================
Dep. Variable:                       y    R-squared:                        0.019
Model:                             OLS    Adj. R-squared:                   0.004
Method:                  Least Squares    F-statistic:                      1.295
Date:                 Sat, 09 Nov 2024    Prob (F-statistic):               0.272
Time:                         03:37:51    Log-Likelihood:                  -1016.9
No. Observations:                  266    AIC:                              2044.
Df Residuals:                      261    BIC:                              2062.
Df Model:                            4
Covariance Type:             nonrobust
================================================================
===================
                 coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------
const          66.0536      0.685     96.405      0.000      64.704      67.403
x1             -0.4111      0.850     -0.483      0.629      -2.086       1.263
x2              0.5578      0.823      0.677      0.499      -1.064       2.179
x3              1.4602      0.772      1.891      0.060      -0.061       2.981
x4             -1.0626      0.995     -1.068      0.286      -3.021       0.896
================================================================
===================
Omnibus:                     67242.135    Durbin-Watson:                    0.050
Prob(Omnibus):                   0.000    Jarque-Bera (JB):                23.444
Skew:                           -0.052    Prob(JB):                      8.11e-06
Kurtosis:                        1.549    Cond. No.                         2.60
================================================================
===================
```

Notes:

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

OLS Regression Results

===
Dep. Variable: y   R-squared: 0.009
Model: OLS   Adj. R-squared: -0.007
Method: Least Squares   F-statistic: 0.5647
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.688
Time: 03:37:51   Log-Likelihood: -868.92
No. Observations: 266   AIC: 1748.
Df Residuals: 261   BIC: 1766.
Df Model: 4
Covariance Type: nonrobust
===
                 coef   std err   t   P>|t| [0.025   0.975]
----
const   50.3377   0.393   128.166   0.000   49.564   51.111
x1   0.2244   0.487   0.460   0.646   -0.735   1.184
x2   -0.4096   0.472   -0.868   0.386   -1.339   0.520
x3   0.3811   0.443   0.861   0.390   -0.491   1.253
x4   -0.6124   0.570   -1.074   0.284   -1.735   0.510
===
Omnibus: 11.474   Durbin-Watson: 0.040
Prob(Omnibus):   0.003   Jarque-Bera (JB):   12.171
Skew: -0.508   Prob(JB):   0.00228
Kurtosis: 2.743   Cond. No.   2.60
===

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for SPGI

OLS Regression Results

===
Dep. Variable: y   R-squared: 0.013
Model: OLS   Adj. R-squared: -0.002
Method: Least Squares   F-statistic: 0.8783
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.477
Time: 03:37:51   Log-Likelihood: -1279.8
No. Observations: 266   AIC: 2570.
Df Residuals: 261   BIC: 2588.
Df Model: 4

Covariance Type: nonrobust
==
==================

                coef   std err   t   P>|t| [0.025   0.975]
----
const   356.4393   1.841   193.634   0.000   352.815   360.064
x1   0.3016   2.285   0.132   0.895   -4.197   4.800
x2   -0.0098   2.212   -0.004   0.996   -4.366   4.346
x3   -0.5643   2.075   -0.272   0.786   -4.650   3.522
x4   -2.9789   2.672   -1.115   0.266   -8.240   2.283
==
==================
Omnibus: 1.446   Durbin-Watson: 0.037
Prob(Omnibus):   0.485   Jarque-Bera (JB):   1.315
Skew: -0.020   Prob(JB):   0.518
Kurtosis: 2.658   Cond. No.   2.60
==
==================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for SPY
                        OLS Regression Results
==
==================
Dep. Variable: y   R-squared: 0.008
Model: OLS   Adj. R-squared: -0.007
Method: Least Squares   F-statistic: 0.5310
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.713
Time: 03:37:51   Log-Likelihood: -1254.5
No. Observations: 266   AIC: 2519.
Df Residuals: 261   BIC: 2537.
Df Model: 4
Covariance Type: nonrobust
==
==================

                coef   std err   t   P>|t| [0.025   0.975]
----
const   405.6904   1.674   242.375   0.000   402.395   408.986
x1   1.8821   2.078   0.906   0.366   -2.209   5.973
x2   -0.8373   2.012   -0.416   0.678   -4.798   3.124
x3   -0.4143   1.887   -0.220   0.826   -4.130   3.301
x4   -0.9048   2.430   -0.372   0.710   -5.689   3.879
==

```
===================
Omnibus:                       41.329   Durbin-Watson:                  0.015
Prob(Omnibus):                  0.000   Jarque-Bera (JB):              11.901
Skew:                           0.197   Prob(JB):                     0.00261
Kurtosis:                       2.042   Cond. No.                        2.60
===============================================================
===================
```

Notes:

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

<div align="center">OLS Regression Results</div>

```
===============================================================
===================
Dep. Variable:                       y   R-squared:                      0.011
Model:                             OLS   Adj. R-squared:                -0.004
Method:                  Least Squares   F-statistic:                   0.7402
Date:                 Sat, 09 Nov 2024   Prob (F-statistic):             0.565
Time:                         03:37:51   Log-Likelihood:                -1285.4
No. Observations:                  266   AIC:                            2581.
Df Residuals:                      261   BIC:                            2599.
Df Model:                            4
Covariance Type:             nonrobust
===============================================================
===================
                 coef    std err          t      P>|t|      [0.025      0.975]
---------------------------------------------------------------------
const         261.4456      1.879    139.111      0.000     257.745     265.146
x1              1.0204      2.333      0.437      0.662      -3.573       5.614
x2             -0.3887      2.259     -0.172      0.863      -4.836       4.059
x3             -2.9464      2.119     -1.391      0.165      -7.118       1.225
x4              0.2220      2.728      0.081      0.935      -5.150       5.594
===============================================================
===================
Omnibus:                       63.688   Durbin-Watson:                  0.030
Prob(Omnibus):                  0.000   Jarque-Bera (JB):              23.994
Skew:                          -0.532   Prob(JB):                     6.16e-06
Kurtosis:                       1.984   Cond. No.                        2.60
===============================================================
===================
```

Notes:

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

OLS Regression Results

===

	coef	std err	t	P>|t|	[0.025	0.975]

Dep. Variable:	y	R-squared:	0.014
Model:	OLS	Adj. R-squared:	-0.001
Method:	Least Squares	F-statistic:	0.9545
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.433
Time:	03:37:51	Log-Likelihood:	-518.76
No. Observations:	266	AIC:	1048.
Df Residuals:	261	BIC:	1065.
Df Model:	4		
Covariance Type:	nonrobust		

===

	coef	std err	t	P>|t|	[0.025	0.975]
const	16.6633	0.105	158.251	0.000	16.456	16.871
x1	0.0312	0.131	0.239	0.811	-0.226	0.289
x2	-0.0047	0.127	-0.037	0.970	-0.254	0.244
x3	-0.1181	0.119	-0.995	0.321	-0.352	0.116
x4	-0.1047	0.153	-0.685	0.494	-0.406	0.196

===

Omnibus:	493.401	Durbin-Watson:	0.047
Prob(Omnibus):	0.000	Jarque-Bera (JB):	20.410
Skew:	-0.005	Prob(JB):	3.70e-05
Kurtosis:	1.643	Cond. No.	2.60

===

Notes:

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

OLS Regression Results

===

	y	R-squared:	0.005
Dep. Variable:	y	R-squared:	0.005
Model:	OLS	Adj. R-squared:	-0.010
Method:	Least Squares	F-statistic:	0.3340
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.855
Time:	03:37:51	Log-Likelihood:	-918.98
No. Observations:	266	AIC:	1848.
Df Residuals:	261	BIC:	1866.
Df Model:	4		

Covariance Type: nonrobust
==
                 coef   std err   t   P>|t| [0.025   0.975]
----
const   77.8056   0.474   164.123   0.000   76.872   78.739
x1   0.1948   0.588   0.331   0.741   -0.964   1.353
x2   -0.3256   0.570   -0.572   0.568   -1.447   0.796
x3   -0.0585   0.534   -0.109   0.913   -1.111   0.994
x4   -0.4858   0.688   -0.706   0.481   -1.841   0.869
==
Omnibus: 5.990   Durbin-Watson: 0.018
Prob(Omnibus):   0.050   Jarque-Bera (JB):   6.056
Skew: -0.369   Prob(JB):   0.0484
Kurtosis: 2.950   Cond. No.   2.60
==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for TMO

                               OLS Regression Results
==
Dep. Variable: y   R-squared: 0.030
Model: OLS   Adj. R-squared: 0.016
Method: Least Squares   F-statistic: 2.044
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.0886
Time: 03:37:51   Log-Likelihood: -1223.5
No. Observations: 266   AIC: 2457.
Df Residuals: 261   BIC: 2475.
Df Model: 4
Covariance Type: nonrobust
==
                 coef   std err   t   P>|t| [0.025   0.975]
----
const   541.0732   1.490   363.256   0.000   538.140   544.006
x1   0.0893   1.849   0.048   0.962   -3.551   3.730
x2   -0.3202   1.790   -0.179   0.858   -3.845   3.205
x3   -2.5146   1.679   -1.498   0.135   -5.821   0.792
x4   -2.5895   2.162   -1.198   0.232   -6.847   1.668
==

```
====================
Omnibus:                         11.673    Durbin-Watson:                    0.143
Prob(Omnibus):                    0.003    Jarque-Bera (JB):                 5.328
Skew:                             0.001    Prob(JB):                        0.0697
Kurtosis:                         2.307    Cond. No.                         2.60
================================================================
====================
```

Notes:

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

OLS Regression Results

```
================================================================
====================
Dep. Variable:                        y    R-squared:                       0.009
Model:                              OLS    Adj. R-squared:                 -0.006
Method:                   Least Squares    F-statistic:                    0.5883
Date:                Sat, 09 Nov 2024    Prob (F-statistic):              0.671
Time:                        03:37:51    Log-Likelihood:                 -1405.9
No. Observations:                 266    AIC:                              2822.
Df Residuals:                     261    BIC:                              2840.
Df Model:                           4
Covariance Type:              nonrobust
================================================================
====================
                 coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------
const         211.1287      2.956     71.413      0.000     205.307     216.950
x1              0.4280      3.670      0.117      0.907      -6.798       7.654
x2             -0.5515      3.553     -0.155      0.877      -7.548       6.444
x3              3.9574      3.333      1.187      0.236      -2.605      10.520
x4              1.0537      4.292      0.246      0.806      -7.397       9.504
================================================================
====================
Omnibus:                         13.960    Durbin-Watson:                    0.054
Prob(Omnibus):                    0.001    Jarque-Bera (JB):                 5.927
Skew:                            -0.010    Prob(JB):                        0.0516
Kurtosis:                         2.269    Cond. No.                         2.60
================================================================
====================
```

Notes:

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

OLS Regression Results

==

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y	R-squared:			0.058	
Model:	OLS	Adj. R-squared:			0.044	
Method:	Least Squares	F-statistic:			4.024	
Date:	Sat, 09 Nov 2024	Prob (F-statistic):			0.00348	
Time:	03:37:51	Log-Likelihood:			-921.95	
No. Observations:	266	AIC:			1854.	
Df Residuals:	261	BIC:			1872.	
Df Model:	4					
Covariance Type:	nonrobust					

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	168.4784	0.479	351.437	0.000	167.534	169.422
x1	1.1966	0.595	2.011	0.045	0.025	2.368
x2	-0.1036	0.576	-0.180	0.857	-1.238	1.031
x3	-0.9549	0.540	-1.767	0.078	-2.019	0.109
x4	-0.2946	0.696	-0.423	0.672	-1.665	1.076

==

Omnibus:	14.901	Durbin-Watson:	0.113
Prob(Omnibus):	0.001	Jarque-Bera (JB):	15.892
Skew:	-0.590	Prob(JB):	0.000354
Kurtosis:	3.207	Cond. No.	2.60

==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for UNH

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.018
Model:	OLS	Adj. R-squared:	0.003
Method:	Least Squares	F-statistic:	1.197
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.313
Time:	03:37:51	Log-Likelihood:	-1190.7
No. Observations:	266	AIC:	2391.
Df Residuals:	261	BIC:	2409.
Df Model:	4		

Covariance Type: nonrobust
==

	coef	std err	t	P>|t|	[0.025	0.975]
const	495.1137	1.317	375.973	0.000	492.521	497.707
x1	1.7257	1.634	1.056	0.292	-1.493	4.944
x2	0.1137	1.583	0.072	0.943	-3.003	3.230
x3	2.9211	1.484	1.968	0.050	-0.002	5.844
x4	0.1525	1.912	0.080	0.936	-3.612	3.917

==

Omnibus:	11.572	Durbin-Watson:	0.136
Prob(Omnibus):	0.003	Jarque-Bera (JB):	9.172
Skew:	0.359	Prob(JB):	0.0102
Kurtosis:	2.442	Cond. No.	2.60

==

Notes:

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

Model for UNP

OLS Regression Results

==

Dep. Variable:	y	R-squared:	0.006
Model:	OLS	Adj. R-squared:	-0.009
Method:	Least Squares	F-statistic:	0.4141
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.798
Time:	03:37:51	Log-Likelihood:	-1020.4
No. Observations:	266	AIC:	2051.
Df Residuals:	261	BIC:	2069.
Df Model:	4		
Covariance Type:	nonrobust		

==

	coef	std err	t	P>|t|	[0.025	0.975]
const	203.8562	0.694	293.739	0.000	202.490	205.223
x1	-0.1865	0.861	-0.217	0.829	-1.883	1.510
x2	-0.2005	0.834	-0.240	0.810	-1.843	1.442
x3	0.2144	0.782	0.274	0.784	-1.326	1.755
x4	-1.1534	1.007	-1.145	0.253	-3.137	0.830

==

```
====================
Omnibus:                      16.940   Durbin-Watson:                   0.089
Prob(Omnibus):                 0.000   Jarque-Bera (JB):               19.045
Skew:                          0.652   Prob(JB):                     7.32e-05
Kurtosis:                      2.871   Cond. No.                         2.60
================================================================
====================
```

Notes:

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

<div align="center">OLS Regression Results</div>

```
================================================================
====================
Dep. Variable:                     y   R-squared:                       0.022
Model:                           OLS   Adj. R-squared:                  0.007
Method:                Least Squares   F-statistic:                     1.450
Date:               Sat, 09 Nov 2024   Prob (F-statistic):              0.218
Time:                       03:37:51   Log-Likelihood:                 -973.50
No. Observations:                266   AIC:                             1957.
Df Residuals:                    261   BIC:                             1975.
Df Model:                          4
Covariance Type:            nonrobust
================================================================
====================
                 coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------
const        173.9569      0.582    298.932      0.000     172.811     175.103
x1             0.8523      0.722      1.180      0.239      -0.570       2.275
x2            -0.0585      0.699     -0.084      0.933      -1.436       1.319
x3            -0.9441      0.656     -1.439      0.151      -2.236       0.348
x4             0.0790      0.845      0.093      0.926      -1.584       1.742
================================================================
====================
Omnibus:                      16.012   Durbin-Watson:                   0.101
Prob(Omnibus):                 0.000   Jarque-Bera (JB):                7.320
Skew:                         -0.165   Prob(JB):                       0.0257
Kurtosis:                      2.257   Cond. No.                         2.60
================================================================
====================
```

Notes:

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

OLS Regression Results

===

	coef	std err	t	P>|t|	[0.025	0.975]
Dep. Variable:	y	R-squared:			0.009	
Model:	OLS	Adj. R-squared:			-0.006	
Method:	Least Squares	F-statistic:			0.6072	
Date:	Sat, 09 Nov 2024	Prob (F-statistic):			0.658	
Time:	03:37:51	Log-Likelihood:			-1143.4	
No. Observations:	266	AIC:			2297.	
Df Residuals:	261	BIC:			2315.	
Df Model:	4					
Covariance Type:	nonrobust					

===

	coef	std err	t	P>|t|	[0.025	0.975]
const	219.8758	1.102	199.494	0.000	217.706	222.046
x1	0.5724	1.368	0.418	0.676	-2.121	3.266
x2	-0.5756	1.325	-0.435	0.664	-3.184	2.033
x3	-1.1806	1.242	-0.950	0.343	-3.627	1.266
x4	-0.5661	1.600	-0.354	0.724	-3.716	2.584

===

Omnibus:	17.521	Durbin-Watson:	0.029
Prob(Omnibus):	0.000	Jarque-Bera (JB):	19.054
Skew:	-0.631	Prob(JB):	7.28e-05
Kurtosis:	2.645	Cond. No.	2.60

===

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for VRTX

OLS Regression Results

===

Dep. Variable:	y	R-squared:	0.006
Model:	OLS	Adj. R-squared:	-0.009
Method:	Least Squares	F-statistic:	0.3832
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.821
Time:	03:37:51	Log-Likelihood:	-1222.9
No. Observations:	266	AIC:	2456.
Df Residuals:	261	BIC:	2474.
Df Model:	4		

Covariance Type: nonrobust
==
	coef	std err	t	P>|t|	[0.025	0.975]
const	319.4661	1.486	214.962	0.000	316.540	322.392
x1	2.1345	1.845	1.157	0.248	-1.498	5.767
x2	-0.3814	1.786	-0.214	0.831	-3.898	3.135
x3	-0.2008	1.675	-0.120	0.905	-3.500	3.098
x4	0.6187	2.157	0.287	0.774	-3.629	4.867

==
Omnibus:	2383.219	Durbin-Watson:	0.038
Prob(Omnibus):	0.000	Jarque-Bera (JB):	22.957
Skew:	0.074	Prob(JB):	1.04e-05
Kurtosis:	1.568	Cond. No.	2.60

==

Notes:

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

Model for VZ

OLS Regression Results

==
Dep. Variable:	y	R-squared:	0.018
Model:	OLS	Adj. R-squared:	0.003
Method:	Least Squares	F-statistic:	1.194
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.314
Time:	03:37:51	Log-Likelihood:	-555.44
No. Observations:	266	AIC:	1121.
Df Residuals:	261	BIC:	1139.
Df Model:	4		
Covariance Type:	nonrobust		

==
	coef	std err	t	P>|t|	[0.025	0.975]
const	36.2015	0.121	299.525	0.000	35.964	36.440
x1	0.0294	0.150	0.196	0.845	-0.266	0.325
x2	0.1311	0.145	0.903	0.367	-0.155	0.417
x3	-0.0981	0.136	-0.720	0.472	-0.366	0.170
x4	-0.0917	0.175	-0.523	0.602	-0.437	0.254

==

```
===================
Omnibus:                      17.178   Durbin-Watson:            0.090
Prob(Omnibus):                 0.000   Jarque-Bera (JB):         7.474
Skew:                          0.154   Prob(JB):                0.0238
Kurtosis:                      2.239   Cond. No.                  2.60
============================================================
===================
```

Notes:

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

<div align="center">OLS Regression Results</div>

```
============================================================
===================
Dep. Variable:                    y   R-squared:                0.027
Model:                          OLS   Adj. R-squared:           0.012
Method:               Least Squares   F-statistic:              1.778
Date:              Sat, 09 Nov 2024   Prob (F-statistic):       0.134
Time:                      03:37:51   Log-Likelihood:          -647.54
No. Observations:               266   AIC:                       1305.
Df Residuals:                   261   BIC:                       1323.
Df Model:                         4
Covariance Type:          nonrobust
============================================================
===================
                 coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------
const          42.2041      0.171    246.989      0.000      41.868      42.541
x1              0.1478      0.212      0.697      0.487      -0.270       0.565
x2             -0.0161      0.205     -0.079      0.937      -0.420       0.388
x3              0.4262      0.193      2.213      0.028       0.047       0.805
x4             -0.3525      0.248     -1.421      0.156      -0.841       0.136
============================================================
===================
Omnibus:                       9.968   Durbin-Watson:            0.067
Prob(Omnibus):                 0.007   Jarque-Bera (JB):         5.140
Skew:                         -0.100   Prob(JB):                0.0765
Kurtosis:                      2.349   Cond. No.                  2.60
============================================================
===================
```

Notes:

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

OLS Regression Results

===

Dep. Variable:	y	R-squared:				0.003
Model:	OLS	Adj. R-squared:				-0.013
Method:	Least Squares	F-statistic:				0.1813
Date:	Sat, 09 Nov 2024	Prob (F-statistic):				0.948
Time:	03:37:51	Log-Likelihood:				-975.24
No. Observations:	266	AIC:				1960.
Df Residuals:	261	BIC:				1978.
Df Model:	4					
Covariance Type:	nonrobust					

===

	coef	std err	t	P>|t|	[0.025	0.975]
const	146.3091	0.586	249.787	0.000	145.156	147.462
x1	0.4115	0.727	0.566	0.572	-1.020	1.843
x2	-0.3407	0.704	-0.484	0.629	-1.727	1.045
x3	-0.1845	0.660	-0.279	0.780	-1.485	1.116
x4	-0.0189	0.850	-0.022	0.982	-1.693	1.655

===

Omnibus:	24.761	Durbin-Watson:	0.023
Prob(Omnibus):	0.000	Jarque-Bera (JB):	8.125
Skew:	0.017	Prob(JB):	0.0172
Kurtosis:	2.144	Cond. No.	2.60

===

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for XOM

OLS Regression Results

===

Dep. Variable:	y	R-squared:	0.015
Model:	OLS	Adj. R-squared:	-0.000
Method:	Least Squares	F-statistic:	0.9972
Date:	Sat, 09 Nov 2024	Prob (F-statistic):	0.410
Time:	03:37:51	Log-Likelihood:	-889.84
No. Observations:	266	AIC:	1790.
Df Residuals:	261	BIC:	1808.
Df Model:	4		

Covariance Type: nonrobust
==

                 coef   std err   t   P>|t| [0.025   0.975]
----
const   105.7611   0.425   248.916   0.000   104.924   106.598
x1   0.7039   0.527   1.335   0.183   -0.335   1.742
x2   -0.7223   0.511   -1.415   0.158   -1.728   0.283
x3   0.0916   0.479   0.191   0.849   -0.852   1.035
x4   -0.3256   0.617   -0.528   0.598   -1.540   0.889
==

Omnibus: 42.600   Durbin-Watson: 0.069
Prob(Omnibus):   0.000   Jarque-Bera (JB):   60.892
Skew: -0.997   Prob(JB):   5.99e-14
Kurtosis: 4.233   Cond. No.   2.60
==

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Model for ZTS
                          OLS Regression Results
==
Dep. Variable: y   R-squared: 0.008
Model: OLS   Adj. R-squared: -0.007
Method: Least Squares   F-statistic: 0.5550
Date: Sat, 09 Nov 2024   Prob (F-statistic):   0.696
Time: 03:37:51   Log-Likelihood: -1083.2
No. Observations: 266   AIC: 2176.
Df Residuals: 261   BIC: 2194.
Df Model: 4
Covariance Type: nonrobust
==

                 coef   std err   t   P>|t| [0.025   0.975]
----
const   164.8790   0.879   187.606   0.000   163.148   166.610
x1   -0.0859   1.091   -0.079   0.937   -2.234   2.062
x2   0.2471   1.056   0.234   0.815   -1.833   2.327
x3   -1.3771   0.991   -1.390   0.166   -3.328   0.574
x4   0.2411   1.276   0.189   0.850   -2.271   2.753
==

```
====================
Omnibus:                     21.332    Durbin-Watson:              0.054
Prob(Omnibus):                0.000    Jarque-Bera (JB):           7.515
Skew:                         0.017    Prob(JB):                  0.0233
Kurtosis:                     2.177    Cond. No.                    2.60
============================================================
====================
```

Notes:

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