

Appendix A : Outliers

First I measure the cook's distance of my models. Observations that have a cook's distance greater than 4 times the mean are considered as influential and are summarized in figures 1, 2 and 3.

X	Companies	Year	Ticker	Date	Ra	Beta	AlphaJensen
678	678	32	2015	APA	2015-12-01	-0.10067229	1.203229
-0.04402664	1.795195	-0.005170913	ROA	TobinsQ	ROE	EnergyProductivity	CarbonProductivity
678	-0.72	0.93	-1.62	0.00	0.04	882	0.06
1.40	0.60	0.08	0.09	WaterProductivity	WasteProductivity	SustainabilityPayLink	
678	0.00	0.00	1	882	0.05	0.04	1
SustainableThemedCommitment	AuditScore	FirmSize	Leverage	NetMargin			
678	0	1	10.28	3.54	-3.63	882	1
9.99	5.22	8.62	Industry	678	3	882	1
X	Companies	Year	Ticker	Date	Ra	Beta	
175	175	156	2013	FNMA	2013-12-01	0.127380439	3.5172763
176	176	156	2014	FNMA	2014-12-01	-0.169292057	3.5172763
177	177	156	2015	FNMA	2015-12-01	-0.242467824	3.5172763
193	193	161	2013	GILD	2013-12-01	0.003869318	0.4916288
232	232	174	2013	HIG	2013-12-01	0.016699218	1.7347533
370	370	22	2013	ALL	2013-12-01	0.004962791	0.8037314
AlphaJensen	ROA	TobinsQ	ROE	EnergyProductivity	CarbonProductivity	175	
0.028544976	0.03	1.03	-0.73	0.00	0.00	176	-0.167181691
0.00	1.03	-0.11	0.00	0.00	177	-0.166242929	0.00
1.03	-0.08	0.00	0.00	193	-0.009945452	0.14	5.25
0.28	0.88	0.83	232	-0.032047350	0.00	0.05	0.01
0.12	0.29	370	-0.017622060	0.09	0.19	0.11	0.19
0.21	WaterProductivity	WasteProductivity	SustainabilityPayLink	175	0.00	0.00	0
176	0.00	0.00	0	177	0.00	0.00	0
193	0.00	0.00	0	232	0.04	0.00	1
370	0.31	0.72	0	SustainableThemedCommitment	AuditScore	FirmSize	Leverage
NetMargin	175	0	0	12.51	339.01	-0.05	176
0	0	0	12.51	875.59	-0.05	177	0
0	12.51	793.47	-0.01	193	0	0	10.35
0.35	0.27	232	1	11.44	0.33	0.01	370
1	11.09	0.03	0.16	Industry	175	4	
176	4	177	4	193	5	232	4
370	4	X	Companies	Year	Ticker	Date	Ra
Beta	43	43	111	2013	DAL	2013-12-01	-0.053511418
0.5077983	175	175	156	2013	FNMA	2013-12-01	0.127380439
3.5172763	176	176	156	2014	FNMA	2014-12-01	-0.169292057
3.5172763	177	177	156	2015	FNMA	2015-12-01	-0.242467824
3.5172763	360	360	215	2015	LB	2015-12-01	0.004287896
1.4092611	379	379	222	2013	LNG	2013-12-01	0.085410342
1.3808854	AlphaJensen	ROA	TobinsQ	ROE	EnergyProductivity	CarbonProductivity	43
-0.06778055	0.22	NA	2.22	0.12	0.30	175	0.02854498
0.03	1.03	-0.73	0.00	0.00	176	-0.16718169	0.00
1.03	-0.11	0.00	0.00	177	-0.16624293	0.00	1.03
-0.08	0.00	0.00	360	0.03476886	0.11	4.00	-2.54
0.00	0.06	379	0.04660746	-0.07	1.60	-1.47	0.00
0.00	WaterProductivity	WasteProductivity	SustainabilityPayLink	43	0.89	0.77	1
175	0.00	0.00	0	176	0.00	0.00	0
177	0.00	0.00	0	360	0.00	0.00	1
379	0.00	0.00	0	SustainableThemedCommitment	AuditScore	FirmSize	Leverage
NetMargin	43	1	1	10.72	0.84	0.28	175
0	0	12.51	339.01	-0.05	176	0	0
12.51	875.59	-0.05	177	0	0	12.51	793.47
-0.01	360	0	1	9.90	-8.76	0.07	379
0	0	9.99	36.60	-1.90	Industry	43	6
175	4	176	4	177	4	360	1
379	3	X	Companies	Year	Ticker	Date	Ra
Beta	90	90	128	2015	DVN	2015-12-01	-0.35634138
0.7596914	-0.33995607	148	148	147	2013	F	2013-12-01
-0.10159447	1.5436844	-0.14497201	175	175	156	2013	FNMA
2013-12-01	0.12738044	3.5172763	0.02854498	176	176	156	2014
FNMA	2014-12-01	-0.16929206	3.5172763	-0.16718169	177	177	156
2015	FNMA	2015-12-01	-0.24246782	3.5172763	-0.16624293	380	380
222	2014	LNG	2014-12-01	0.06469011	1.3808854	0.06551864	ROA
TobinsQ	ROE	EnergyProductivity	CarbonProductivity	90	-0.39	0.84	-1.01
0.00	0.08	148	0.04	0.40	0.34	0.57	0.35
175	0.03	1.03	-0.73	0.00	0.00	176	0.00
1.03	-0.11	0.00	0.00	177	0.00	1.03	-0.08
0.00	0.00	380	-0.05	1.94	3.55	0.00	0.00
WaterProductivity	WasteProductivity	SustainabilityPayLink	90	0.08	0.00	1	148
0.70	0.65	1	175	0.00	0.00	0	176
0.00	0.00	0	177	0.00	0.00	0	380
0.00	0	SustainableThemedCommitment	AuditScore	FirmSize	Leverage	NetMargin	90
1	1	10.47	1.72	0.08	148	1	0
11.31	4.35	0.05	175	0	0	12.51	339.01
-0.05	176	0	0	12.51	875.59	-0.05	177
0	0	12.51	793.47	-0.01	380	0	0
10.10	-59.73	-2.04	Industry	90	3	148	1
175	4	176	4	177	4	380	3
X	Companies	Year	Ticker	Date	Ra	Beta	
AlphaJensen	175	175	156	2013	FNMA	2013-12-01	0.12738044
3.5172763	0.02854498	176	176	156	2014	FNMA	2014-12-01
-0.16929206	3.5172763	-0.16718169	177	177	156	2015	FNMA
2015-12-01	-0.24246782	3.5172763	-0.16624293	379	379	222	2013
LNG	2013-12-01	0.08541034	1.3808854	0.04660746	381	381	222
2015	LNG	2015-12-01	-0.24412982	1.3808854	-0.21426461	477	477
255	2015	MRO	2015-12-01	-0.32986932	0.9159572	-0.31009305	ROA
TobinsQ	ROE	EnergyProductivity	CarbonProductivity	175	0.03	1.03	-0.73
0.00	0.00	176	0.00	1.03	-0.11	0.00	0.00
177	0.00	1.03	-0.08	0.00	0.00	379	-0.07
1.60	-1.47	0.00	0.00	381	-0.06	1.28	2.17
0.00	0.01	477	0.04	0.46	0.10	0.03	0.05
WaterProductivity	WasteProductivity	SustainabilityPayLink	175	0	0	0	176
0	0	177	0	0	0	379	0
0	0	381	0	0	0	477	0
1	SustainableThemedCommitment	AuditScore	FirmSize	Leverage	NetMargin	175	0
0	12.51	339.01	-0.05	176	0	0	12.51
875.59	-0.05	177	0	0	12.51	793.47	-0.01
379	0	0	9.99	36.60	-1.90	381	0
0	10.27	-18.40	-3.60	477	1	0	10.51
0.59	0.11	Industry	175	4	176	4	177
4	379	3	381	3	477	3	

Table 1: Model 1 - Energy

	<i>Dependent variable:</i>	
	ROA	
	(1)	(2)
SustainabilityPayLink	0.0004 (0.005)	0.001 (0.004)
SustainableThemedCommitment	0.008 (0.005)	0.012*** (0.004)
AuditScore	-0.004 (0.005)	-0.002 (0.004)
CarbonProductivity	-0.024 (0.017)	-0.021 (0.013)
EnergyProductivity	0.013 (0.015)	0.007 (0.011)
WaterProductivity	0.031** (0.012)	0.025*** (0.009)
WasteProductivity	0.003 (0.012)	0.005 (0.009)
Leverage	-0.00001 (0.00004)	-0.00001 (0.00003)
NetMargin	0.057*** (0.004)	0.167*** (0.008)
FirmSize	-0.030*** (0.005)	-0.036*** (0.004)
Industry	-0.003** (0.001)	-0.003*** (0.001)
Constant	0.371*** (0.047)	0.427*** (0.042)
Observations	1,080	1,078
R ²	0.179	0.340
Adjusted R ²	0.170	0.333
F Statistic	21.151*** (df = 11; 1068)	49.941*** (df = 11; 1066)

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 2: Model 1 - No Energy

	<i>Dependent variable:</i>	
	ROA	
	(1)	(2)
SustainabilityPayLink	0.0001 (0.004)	0.0005 (0.004)
SustainableThemedCommitment	0.009 (0.005)	0.012*** (0.004)
AuditScore	-0.004 (0.005)	-0.002 (0.004)
CarbonProductivity	-0.012 (0.011)	-0.015* (0.008)
WaterProductivity	0.033*** (0.012)	0.026*** (0.009)
WasteProductivity	0.002 (0.012)	0.004 (0.009)
Leverage	-0.00001 (0.00004)	-0.00001 (0.00003)
NetMargin	0.057*** (0.004)	0.167*** (0.008)
FirmSize	-0.030*** (0.005)	-0.036*** (0.004)
Industry	-0.003** (0.001)	-0.003*** (0.001)
Constant	0.372*** (0.047)	0.427*** (0.042)
Observations	1,080	1,078
R ²	0.178	0.340
Adjusted R ²	0.171	0.334
F Statistic	23.208*** (df = 10; 1069)	54.920*** (df = 10; 1067)
<i>Note:</i>		*p<0.1; **p<0.05; ***p<0.01

Table 3: Model 1 - Short Version

	<i>Dependent variable:</i>
	ROA
SustainabilityPayLink	−0.0003 (0.003)
SustainableThemedCommitment	0.012*** (0.004)
AuditScore	−0.001 (0.004)
Leverage	−0.00001 (0.00003)
NetMargin	0.169*** (0.008)
FirmSize	−0.036*** (0.004)
Industry	−0.003*** (0.001)
Constant	0.427*** (0.043)
Observations	1,078
R ²	0.332
Adjusted R ²	0.327
F Statistic	75.814*** (df = 7; 1070)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Table 4: Model 1 - Short Version

	<i>Dependent variable:</i>
	ROA
CarbonProductivity	−0.015* (0.008)
WaterProductivity	0.027*** (0.009)
WasteProductivity	0.004 (0.009)
Leverage	−0.00001 (0.00003)
NetMargin	0.166*** (0.008)
FirmSize	−0.034*** (0.004)
Industry	−0.003*** (0.001)
Constant	0.412*** (0.041)
Observations	1,078
R ²	0.335
Adjusted R ²	0.330
F Statistic	76.934*** (df = 7; 1070)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Table 5: Model 2 - Comparaison with and without outliers

	<i>Dependent variable:</i>	
	log(TobinsQ)	
	(1)	(2)
SustainabilityPayLink	0.039 (0.025)	0.036 (0.026)
SustainableThemedCommitment	0.065* (0.035)	0.069* (0.035)
AuditScore	0.070** (0.035)	0.080** (0.035)
CarbonProductivity	−0.037 (0.054)	−0.055 (0.057)
WaterProductivity	0.063 (0.060)	0.080 (0.063)
WasteProductivity	−0.165*** (0.059)	−0.171*** (0.063)
Leverage	0.00001 (0.0002)	−0.002 (0.002)
NetMargin	0.008 (0.021)	0.115** (0.057)
FirmSize	−0.978*** (0.051)	−1.012*** (0.051)
Industry	−0.025** (0.012)	−0.025** (0.012)
Constant	10.417*** (0.526)	10.755*** (0.531)
Observations	1,005	985
R ²	0.285	0.299
Adjusted R ²	0.278	0.292
F Statistic	39.710*** (df = 10; 994)	41.595*** (df = 10; 974)

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 6: Model 3 - Comparaison with and without outliers

	<i>Dependent variable:</i>	
	ROE	
	(1)	(2)
SustainabilityPayLink	0.007 (0.030)	0.007 (0.020)
SustainableThemedCommitment	0.142*** (0.036)	0.110*** (0.023)
AuditScore	0.007 (0.036)	−0.005 (0.023)
CarbonProductivity	−0.105 (0.071)	−0.058 (0.048)
WaterProductivity	0.085 (0.080)	0.042 (0.054)
WasteProductivity	0.073 (0.079)	0.017 (0.053)
Leverage	0.003*** (0.0003)	−0.006*** (0.002)
NetMargin	0.114*** (0.029)	0.543*** (0.053)
FirmSize	−0.115*** (0.032)	−0.074*** (0.021)
Industry	−0.004 (0.007)	−0.003 (0.005)
Constant	1.305*** (0.328)	0.860*** (0.212)
Observations	1,080	1,065
R ²	0.132	0.120
Adjusted R ²	0.124	0.112
F Statistic	16.221*** (df = 10; 1069)	14.351*** (df = 10; 1054)
<i>Note:</i>		*p<0.1; **p<0.05; ***p<0.01

Table 7: Model 4 - Comparaison with and without outliers

	<i>Dependent variable:</i>	
	AlphaJensen	
	(1)	(2)
SustainabilityPayLink	0.00005 (0.004)	−0.001 (0.004)
SustainableThemedCommitment	0.002 (0.004)	0.003 (0.004)
AuditScore	0.003 (0.004)	0.003 (0.004)
CarbonProductivity	−0.006 (0.012)	−0.011 (0.011)
WaterProductivity	−0.005 (0.014)	0.00002 (0.013)
WasteProductivity	0.001 (0.014)	−0.003 (0.012)
Leverage	−0.0001*** (0.00004)	−0.0002 (0.0003)
NetMargin	0.016*** (0.005)	0.022*** (0.008)
FirmSize	−0.003 (0.003)	−0.004 (0.003)
Industry	0.001* (0.001)	0.0003 (0.001)
Constant	0.027 (0.031)	0.034 (0.027)
Observations	1,077	1,061
R ²	0.026	0.012
Adjusted R ²	0.017	0.003
F Statistic	2.885*** (df = 10; 1066)	1.296 (df = 10; 1050)
<i>Note:</i>		*p<0.1; **p<0.05; ***p<0.01

Table 8: Model 5 - Comparaison with and without outliers

	<i>Dependent variable:</i>	
	Ra	
	(1)	(2)
SustainabilityPayLink	−0.006 (0.004)	−0.007* (0.004)
SustainableThemedCommitment	0.0001 (0.004)	0.0001 (0.004)
AuditScore	−0.002 (0.004)	−0.002 (0.004)
CarbonProductivity	0.036*** (0.013)	0.035*** (0.012)
WaterProductivity	0.011 (0.015)	0.005 (0.014)
WasteProductivity	0.016 (0.015)	0.015 (0.013)
Leverage	−0.0001*** (0.00004)	−0.0004 (0.0003)
NetMargin	0.015*** (0.005)	0.026*** (0.009)
FirmSize	−0.002 (0.003)	−0.003 (0.003)
Industry	0.001 (0.001)	0.0003 (0.001)
Constant	0.012 (0.033)	0.025 (0.030)
Observations	1,080	1,067
R ²	0.049	0.043
Adjusted R ²	0.041	0.033
F Statistic	5.566*** (df = 10; 1069)	4.688*** (df = 10; 1056)

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 9: Hausman Test PValue

Model	P-Value
Model 1 without outliers	0.0016
Model 2 without outliers	0.9936
Model 3 without outliers	0.005
Model 4 without outliers	0.8936
Model 5 without outliers	0.1861

Table 10: Fixed Effect Model - NoOutlier NoEnergy (1/2)

	<i>Dependent variable:</i>		
	ROA (1)	log(TobinsQ) (2)	ROE (3)
SustainabilityPayLink	−0.002 (0.004)	0.031 (0.026)	−0.022 (0.024)
SustainableThemedCommitment	0.019*** (0.006)	0.062 (0.039)	0.168*** (0.037)
AuditScore	−0.001 (0.006)	0.050 (0.039)	−0.008 (0.037)
CarbonProductivity	−0.019** (0.009)	−0.063 (0.057)	−0.099* (0.052)
WaterProductivity	0.026*** (0.009)	0.069 (0.062)	0.048 (0.057)
WasteProductivity	0.005 (0.009)	−0.175*** (0.063)	0.019 (0.056)
Leverage	−0.00003 (0.00003)	−0.003 (0.002)	−0.005* (0.003)
NetMargin	0.182*** (0.009)	0.111* (0.059)	0.533*** (0.060)
FirmSize	−0.020** (0.009)	−0.851*** (0.095)	−0.071 (0.054)
Observations	1,078	985	1,065
R ²	0.380	0.145	0.133
Adjusted R ²	0.059	−0.316	−0.320
F Statistic	48.377*** (df = 9; 709)	12.063*** (df = 9; 639)	11.912*** (df = 9; 699)

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 11: Fixed Effect Model - NoOutlier NoEnergy (2/2)

	<i>Dependent variable:</i>	
	AlphaJensen	Ra
	(1)	(2)
SustainabilityPayLink	−0.001 (0.007)	−0.014* (0.008)
SustainableThemedCommitment	0.008 (0.011)	0.002 (0.012)
AuditScore	−0.001 (0.011)	−0.016 (0.012)
CarbonProductivity	−0.007 (0.015)	0.043** (0.017)
WaterProductivity	−0.002 (0.017)	0.011 (0.019)
WasteProductivity	−0.009 (0.017)	0.006 (0.018)
Leverage	−0.002* (0.001)	−0.002 (0.001)
NetMargin	0.020 (0.014)	0.031** (0.015)
FirmSize	0.006 (0.016)	−0.008 (0.018)
Observations	1,061	1,067
R ²	0.013	0.068
Adjusted R ²	−0.508	−0.422
F Statistic	0.987 (df = 9; 694)	5.642*** (df = 9; 699)

Note:

*p<0.1; **p<0.05; ***p<0.01

Figure 1: Observations considered as outliers in model 1 (i.e. Roa)

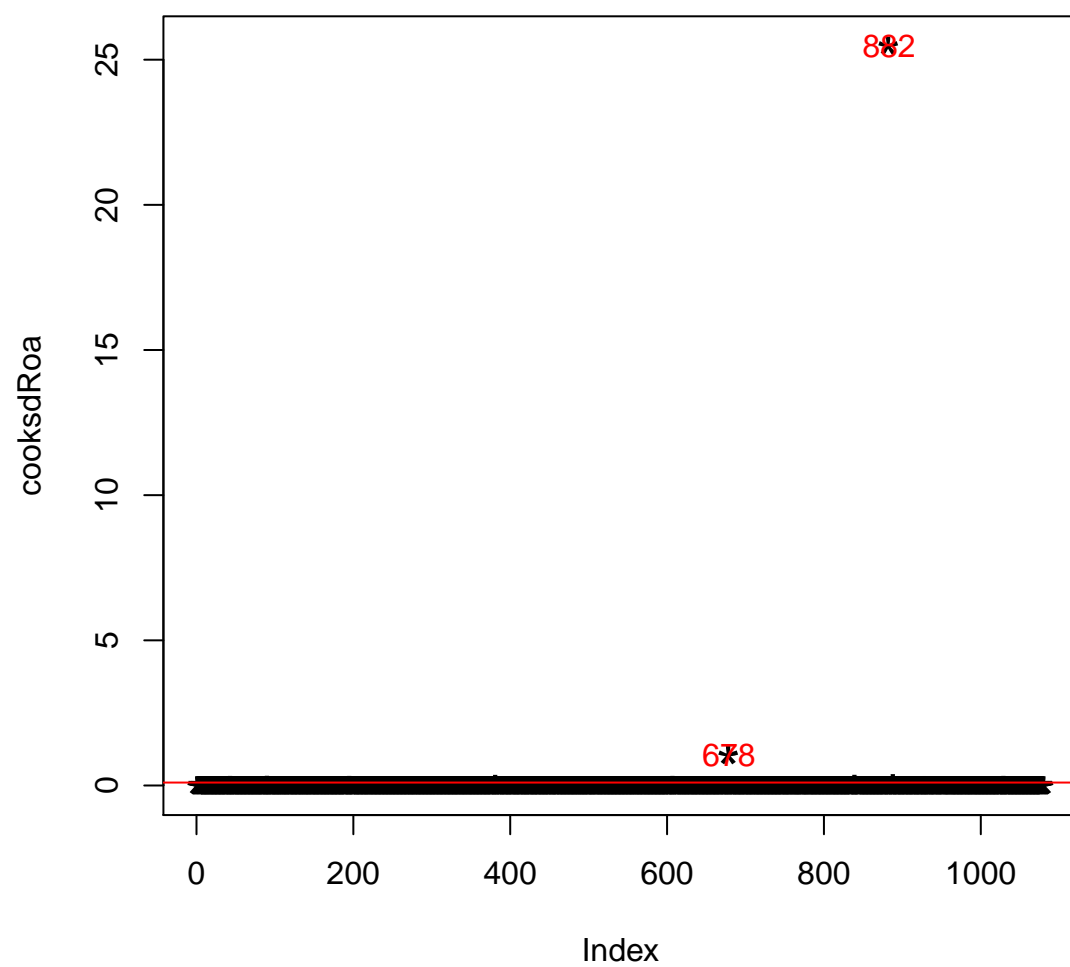


Figure 2: Observations considered as outliers in model 2 (i.e. Tobin's Q)

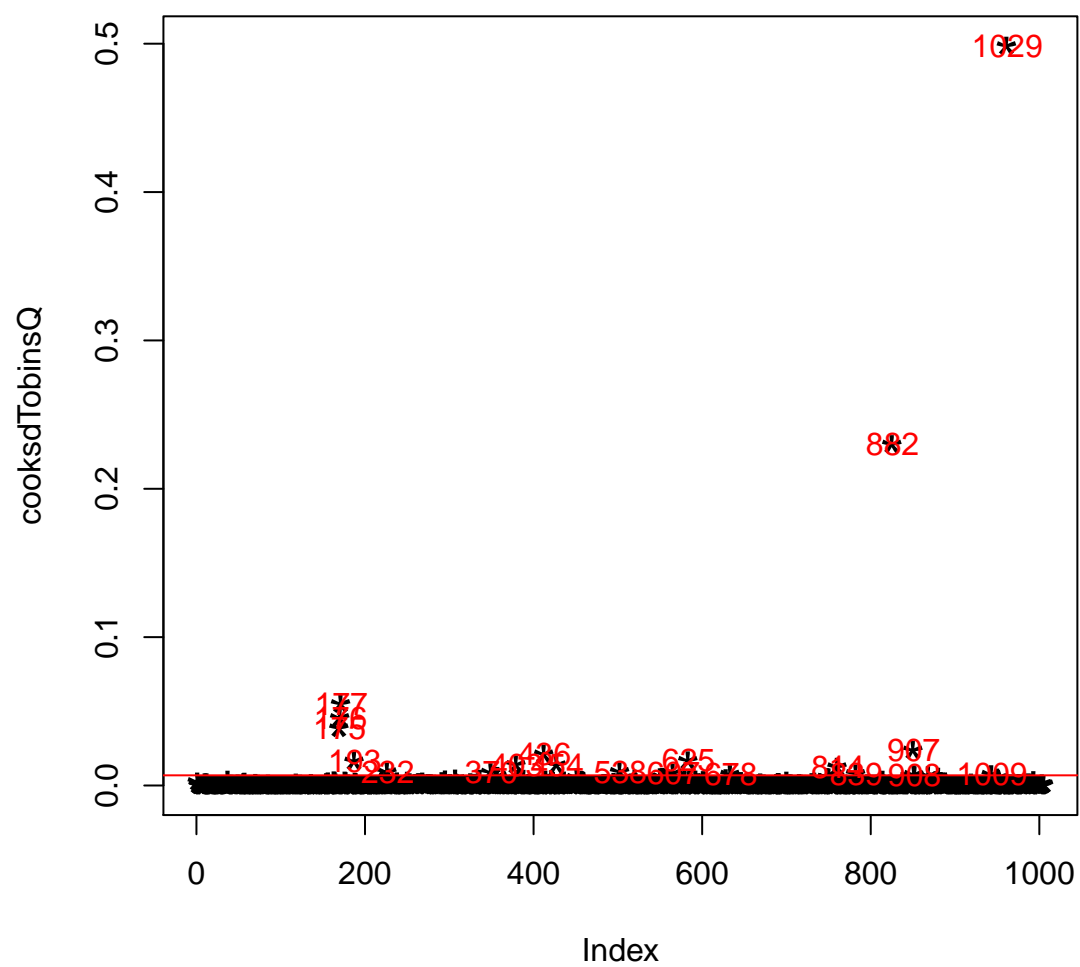


Figure 3: Observations considered as outliers in model 1 (i.e. Roe)

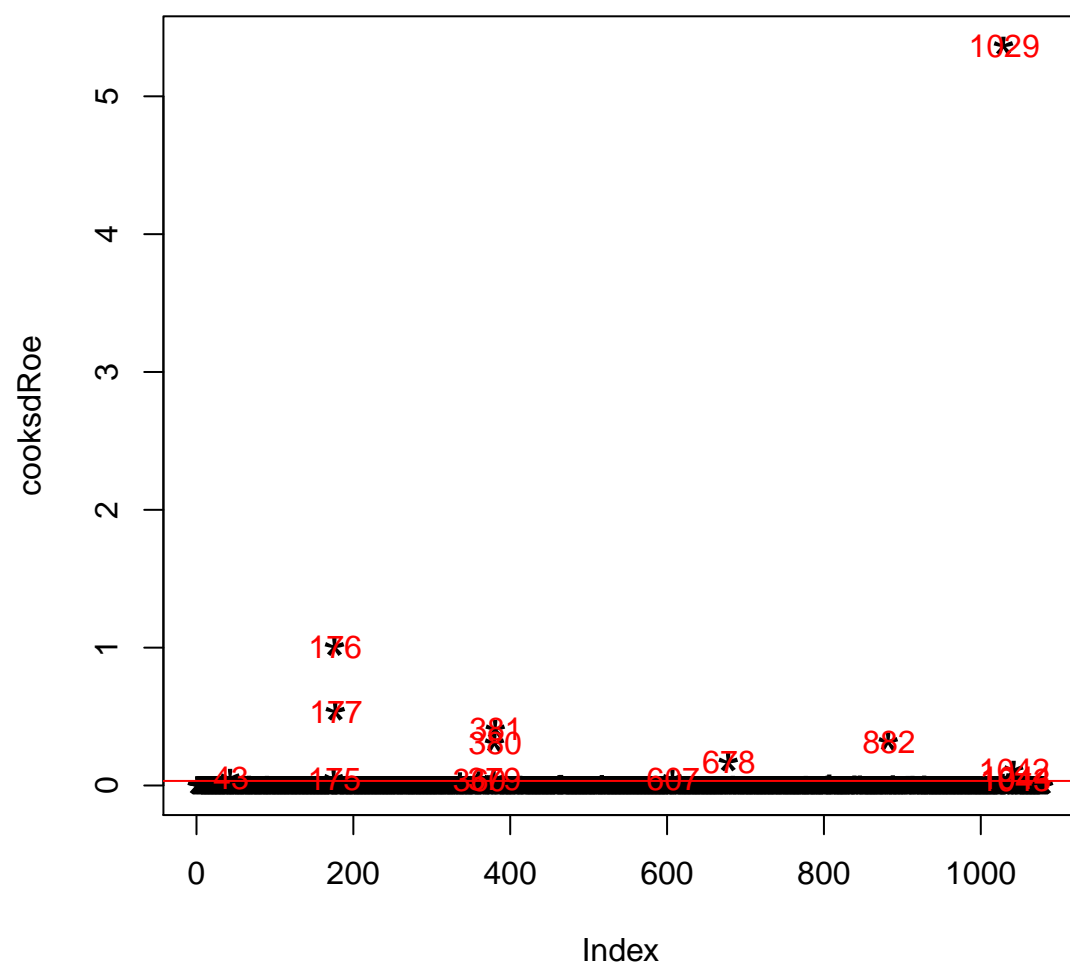


Figure 4: Observations considered as outliers in model 4 (i.e. Jensen's Alpha)

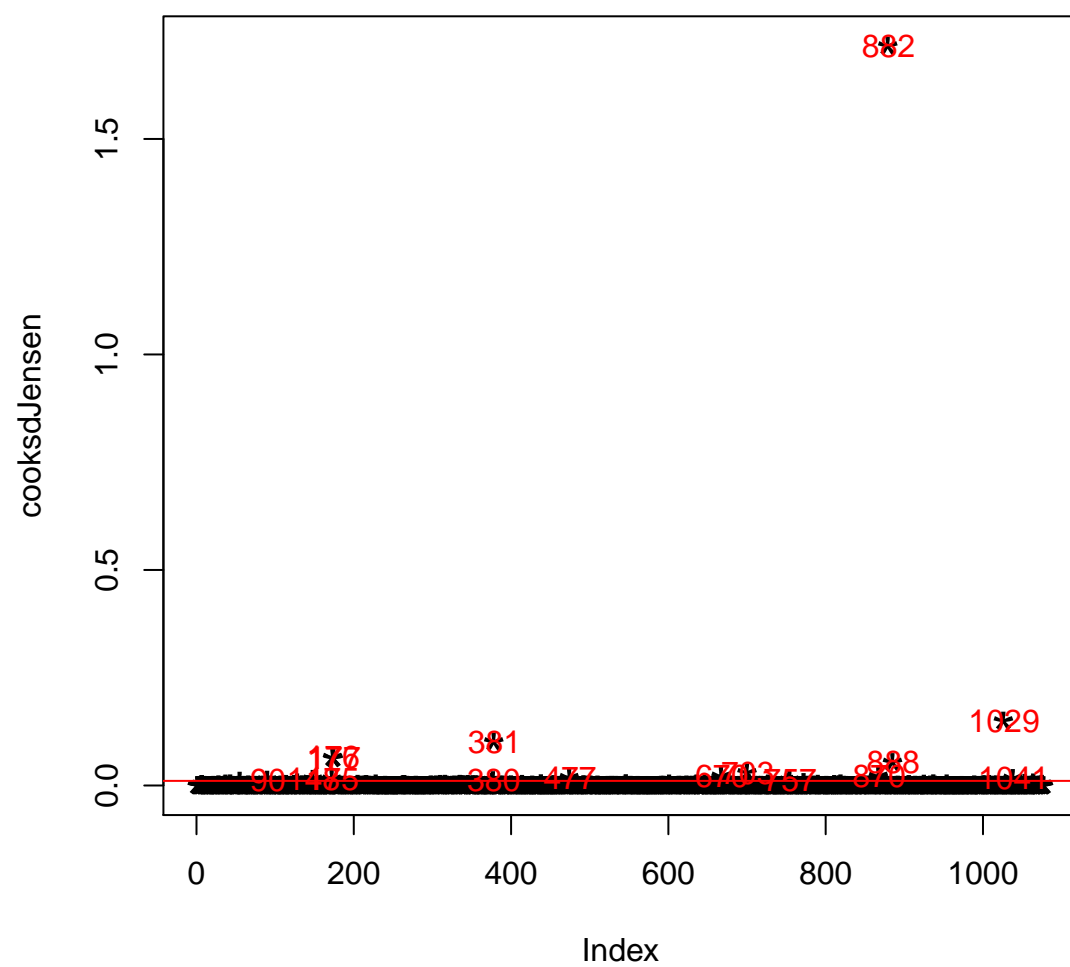


Figure 5: Observations considered as outliers in model 5 (i.e.Compounded Returns)

