Technische Universität München

Department of Mathematics

Regression Tables

Inference Analysis of Existing ESG Scoring Methodologies and an NLP-based Approach to Daily Updates

Appendix to the Master Thesis

by

Vanessa Theel

Supervisor:	Prof. Dr. Rudi Zagst, Prof. Dr. Luis Seco
Advisor:	Jonathan Mostovoy
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Appendix A

Regression Results - Portfolio

A.1 Complete Time Period

	coef	std err	t	P> |t|	[0.025	0.975]
const	-0.0005	0.001	-0.797	0.426	-0.002	0.001
Mkt-RF	0.9894	0.015	66.709	0.000	0.960	1.019
SMB	-0.0275	0.025	-1.093	0.275	-0.077	0.022
HML	0.1391	0.024	5.884	0.000	0.093	0.186
RMW	0.0293	0.035	0.841	0.401	-0.039	0.098
CMA	0.0568	0.042	1.349	0.179	-0.026	0.140
R-squared	0.967					
Adj. R-squared	0.966					
No. Observations	232					

Table A.1: ESG Score Level Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0025	0.001	3.380	0.001	0.001	0.004
Mkt-RF	1.0192	0.020	52.057	0.000	0.981	1.058
SMB	0.2205	0.033	6.636	0.000	0.155	0.286
HML	0.0408	0.031	1.307	0.193	-0.021	0.102
RMW	0.0483	0.046	1.050	0.295	-0.042	0.139
CMA	-0.2154	0.056	-3.872	0.000	-0.325	-0.106
R-squared	0.952					
Adj. R-squared	0.950					
No. Observations	232					

Table A.2: ESG Score Level Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0007	0.001	1.151	0.251	-0.000	0.002
Mkt-RF	0.9851	0.015	65.300	0.000	0.955	1.015
SMB	0.0914	0.026	3.541	0.000	0.041	0.142
HML	0.0581	0.024	2.418	0.016	0.011	0.105
RMW	0.0341	0.038	0.901	0.368	-0.040	0.109
CMA	-0.0420	0.044	-0.955	0.341	-0.129	0.045
R-squared	0.968					
Adj. R-squared	0.968					
No. Observations	219					

Table A.3: ESG Score Change Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0009	0.001	1.164	0.246	-0.001	0.002
Mkt-RF	1.0242	0.020	51.654	0.000	0.985	1.063
SMB	0.1125	0.034	3.313	0.001	0.046	0.179
HML	0.1750	0.032	5.543	0.000	0.113	0.237
RMW	0.0511	0.050	1.029	0.305	-0.047	0.149
CMA	-0.1255	0.058	-2.171	0.031	-0.239	-0.012
R-squared	0.953					
Adj. R-squared	0.952					
No. Observations	219					

Table A.4: ESG Score Ch. Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	-0.0008	0.001	-1.562	0.120	-0.002	0.000
Mkt-RF	0.9822	0.014	69.930	0.000	0.954	1.010
SMB	0.0048	0.024	0.201	0.841	-0.042	0.052
HML	0.1074	0.022	4.795	0.000	0.063	0.151
RMW	0.0960	0.033	2.907	0.004	0.031	0.161
CMA	0.0391	0.040	0.979	0.329	-0.040	0.118
R-squared	0.970					
Adj. R-squared	0.969					
No. Observations	232					

Table A.5: E Score Level Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0030	0.001	4.041	0.000	0.002	0.004
Mkt-RF	0.9888	0.019	50.892	0.000	0.951	1.027
SMB	0.1867	0.033	5.662	0.000	0.122	0.252
HML	0.1295	0.031	4.183	0.000	0.069	0.191
RMW	-0.0444	0.046	-0.971	0.332	-0.134	0.046
CMA	-0.2171	0.055	-3.933	0.000	-0.326	-0.108
R-squared	0.952					
Adj. R-squared	0.950					
No. Observations	232					

Table A.6: E Score Level Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	-0.0003	0.001	-0.495	0.621	-0.002	0.001
Mkt-RF	1.0107	0.018	55.522	0.000	0.975	1.047
SMB	0.0801	0.031	2.572	0.011	0.019	0.142
HML	0.0890	0.029	3.069	0.002	0.032	0.146
RMW	0.0073	0.046	0.160	0.873	-0.083	0.097
CMA	-0.0256	0.053	-0.483	0.629	-0.130	0.079
R-squared	0.968					
Adj. R-squared	0.968					
No. Observations	219					

Table A.7: E Score Change Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0002	0.001	0.317	0.752	-0.001	0.002
Mkt-RF	1.0396	0.019	53.429	0.000	1.001	1.078
SMB	0.1305	0.033	3.917	0.000	0.065	0.196
HML	0.2215	0.031	7.149	0.000	0.160	0.283
RMW	0.1599	0.049	3.278	0.001	0.064	0.256
CMA	-0.0686	0.057	-1.209	0.228	-0.180	0.043
R-squared	0.957					
Adj. R-squared	0.956					
No. Observations	219					

Table A.8: E Score Change Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	-0.0005	0.001	-1.002	0.317	-0.002	0.001
Mkt-RF	1.0065	0.014	71.782	0.000	0.979	1.034
SMB	-0.0149	0.024	-0.625	0.532	-0.062	0.032
HML	0.1298	0.022	5.809	0.000	0.086	0.174
RMW	-0.0018	0.033	-0.056	0.955	-0.067	0.063
CMA	0.0328	0.040	0.824	0.411	-0.046	0.111
R-squared	0.972					
Adj. R-squared	0.971					
No. Observations	232					

Table A.9: S Score Level Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0019	0.001	2.686	0.008	0.001	0.003
Mkt-RF	1.0100	0.019	53.267	0.000	0.973	1.047
SMB	0.2379	0.032	7.394	0.000	0.175	0.301
HML	0.0470	0.030	1.555	0.121	-0.013	0.107
RMW	0.0735	0.045	1.649	0.101	-0.014	0.161
CMA	-0.1393	0.054	-2.584	0.010	-0.245	-0.033
R-squared	0.954					
Adj. R-squared	0.953					
No. Observations	232					

Table A.10: S Score Level Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0001	0.001	0.221	0.825	-0.001	0.001
Mkt-RF	1.0039	0.016	61.899	0.000	0.972	1.036
SMB	0.0887	0.028	3.197	0.002	0.034	0.143
HML	0.1334	0.026	5.167	0.000	0.083	0.184
RMW	0.0306	0.041	0.753	0.452	-0.050	0.111
CMA	-0.0691	0.047	-1.461	0.146	-0.162	0.024
R-squared	0.966					
Adj. R-squared	0.965					
No. Observations	219					

Table A.11: S Score Change Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0003	0.001	0.387	0.699	-0.001	0.002
Mkt-RF	1.0369	0.018	56.756	0.000	1.001	1.073
SMB	0.1136	0.031	3.632	0.000	0.052	0.175
HML	0.1486	0.029	5.109	0.000	0.091	0.206
RMW	0.0827	0.046	1.806	0.072	-0.008	0.173
CMA	-0.0691	0.053	-1.298	0.196	-0.174	0.036
R-squared	0.960					
Adj. R-squared	0.959					
No. Observations	219					

Table A.12: S Score Change Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	-7.922e-05	0.001	-0.134	0.894	-0.001	0.001
Mkt-RF	0.9922	0.015	64.115	0.000	0.962	1.023
SMB	0.0758	0.026	2.885	0.004	0.024	0.128
HML	0.1677	0.025	6.796	0.000	0.119	0.216
RMW	0.1068	0.036	2.937	0.004	0.035	0.179
CMA	0.0432	0.044	0.981	0.327	-0.043	0.130
R-squared	0.966					
Adj. R-squared	0.966					
No. Observations	232					

Table A.13: G Score Level Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0014	0.001	1.851	0.066	-9.17e-05	0.003
Mkt-RF	1.0323	0.020	51.595	0.000	0.993	1.072
SMB	0.1334	0.034	3.928	0.000	0.066	0.200
HML	0.0356	0.032	1.116	0.266	-0.027	0.098
RMW	-0.0112	0.047	-0.238	0.812	-0.104	0.081
CMA	-0.1581	0.057	-2.781	0.006	-0.270	-0.046
R-squared	0.949					
Adj. R-squared	0.948					
No. Observations	232					

Table A.14: G Score Level Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	-8.761e-05	0.001	-0.148	0.882	-0.001	0.001
Mkt-RF	1.0179	0.015	66.773	0.000	0.988	1.048
SMB	0.0915	0.026	3.507	0.001	0.040	0.143
HML	0.0887	0.024	3.653	0.000	0.041	0.137
RMW	0.0385	0.038	1.007	0.315	-0.037	0.114
CMA	-0.0118	0.044	-0.267	0.790	-0.099	0.076
R-squared	0.970					
Adj. R-squared	0.969					
No. Observations	219					

Table A.15: G Score Change Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0007	0.001	0.994	0.321	-0.001	0.002
Mkt-RF	1.0246	0.018	56.274	0.000	0.989	1.060
SMB	0.1284	0.031	4.120	0.000	0.067	0.190
HML	0.1188	0.029	4.099	0.000	0.062	0.176
RMW	0.0376	0.046	0.824	0.411	-0.052	0.128
CMA	-0.0701	0.053	-1.321	0.188	-0.175	0.035
R-squared	0.960					
Adj. R-squared	0.959					
No. Observations	219					

Table A.16: G Score Ch. Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0011	0.001	1.691	0.092	-0.000	0.002
Mkt-RF	1.0100	0.017	59.105	0.000	0.976	1.044
SMB	0.1714	0.029	5.909	0.000	0.114	0.228
HML	0.0890	0.027	3.266	0.001	0.035	0.143
RMW	0.0458	0.040	1.141	0.255	-0.033	0.125
CMA	-0.0651	0.049	-1.340	0.182	-0.161	0.031
R-squared	0.962					
Adj. R-squared	0.961					
No. Observations	232					

Table A.17: Controversies Score Level Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	-0.0002	0.001	-0.299	0.765	-0.001	0.001
Mkt-RF	1.0094	0.013	75.501	0.000	0.983	1.036
SMB	-0.0132	0.023	-0.584	0.560	-0.058	0.031
HML	0.1448	0.021	6.792	0.000	0.103	0.187
RMW	-0.0183	0.031	-0.583	0.560	-0.080	0.044
CMA	-0.0286	0.038	-0.754	0.452	-0.104	0.046
R-squared	0.975					
Adj. R-squared	0.974					
No. Observations	232					

Table A.18: Controversies Score Level Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	2.697e-05	0.001	0.034	0.973	-0.002	0.002
Mkt-RF	1.0611	0.021	51.634	0.000	1.021	1.102
SMB	0.0478	0.035	1.360	0.175	-0.022	0.117
HML	0.1150	0.033	3.515	0.001	0.051	0.180
RMW	0.0171	0.052	0.333	0.740	-0.084	0.119
CMA	0.0583	0.060	0.972	0.332	-0.060	0.176
R-squared	0.950					
Adj. R-squared	0.949					
No. Observations	219					

Table A.19: Controversies Score Change Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	-4.995e-05	0.001	-0.084	0.933	-0.001	0.001
Mkt-RF	1.0033	0.015	65.538	0.000	0.973	1.033
SMB	0.0240	0.026	0.917	0.360	-0.028	0.076
HML	0.1290	0.024	5.294	0.000	0.081	0.177
RMW	-0.0285	0.038	-0.744	0.458	-0.104	0.047
CMA	-0.0268	0.045	-0.600	0.549	-0.115	0.061
R-squared	0.969					
Adj. R-squared	0.968					
No. Observations	219					

Table A.20: Controversies Score Ch. Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	-0.0001	0.001	-0.173	0.863	-0.001	0.001
Mkt-RF	0.9993	0.016	62.388	0.000	0.968	1.031
SMB	0.0389	0.027	1.430	0.154	-0.015	0.092
HML	0.1193	0.026	4.672	0.000	0.069	0.170
RMW	0.0346	0.038	0.919	0.359	-0.040	0.109
CMA	0.0345	0.046	0.759	0.449	-0.055	0.124
R-squared	0.963					
Adj. R-squared	0.963					
No. Observations	232					

Table A.21: ESG Combined Score Level Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0022	0.001	3.139	0.002	0.001	0.004
Mkt-RF	1.0308	0.018	56.866	0.000	0.995	1.067
SMB	0.1943	0.031	6.317	0.000	0.134	0.255
HML	0.0251	0.029	0.870	0.385	-0.032	0.082
RMW	0.0661	0.043	1.552	0.122	-0.018	0.150
CMA	-0.1708	0.052	-3.316	0.001	-0.272	-0.069
R-squared	0.958					
Adj. R-squared	0.957					
No. Observations	232					

Table A.22: ESG Combined Score Level Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0003	0.001	0.541	0.589	-0.001	0.002
Mkt-RF	1.0066	0.016	63.032	0.000	0.975	1.038
SMB	0.0892	0.027	3.263	0.001	0.035	0.143
HML	0.0570	0.025	2.240	0.026	0.007	0.107
RMW	0.0269	0.040	0.673	0.502	-0.052	0.106
CMA	-0.0061	0.047	-0.130	0.896	-0.098	0.086
R-squared	0.966					
Adj. R-squared	0.965					
No. Observations	219					

Table A.23: ESG Combined Score Change Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0006	0.001	0.928	0.355	-0.001	0.002
Mkt-RF	1.0212	0.017	59.282	0.000	0.987	1.055
SMB	0.0785	0.029	2.663	0.008	0.020	0.137
HML	0.1520	0.027	5.543	0.000	0.098	0.206
RMW	0.0214	0.043	0.497	0.620	-0.064	0.107
CMA	-0.1056	0.050	-2.103	0.037	-0.205	-0.007
R-squared	0.963					
Adj. R-squared	0.962					
No. Observations	219					

Table A.24: ESG Combined Score Ch. Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0014	0.001	1.134	0.258	-0.001	0.004
Mkt-RF	1.0825	0.033	32.787	0.000	1.017	1.148
SMB	0.0972	0.056	1.734	0.084	-0.013	0.208
HML	0.0731	0.053	1.388	0.166	-0.031	0.177
RMW	0.0025	0.078	0.032	0.975	-0.150	0.155
CMA	-0.1531	0.094	-1.631	0.104	-0.338	0.032
R-squared	0.881					
Adj. R-squared	0.878					
No. Observations	232					

Table A.25: ESG Score Level Bottom - Controversies Score Level Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0025	0.001	3.103	0.002	0.001	0.004
Mkt-RF	0.9993	0.021	46.736	0.000	0.957	1.041
SMB	0.2500	0.036	6.891	0.000	0.179	0.322
HML	0.0323	0.034	0.948	0.344	-0.035	0.099
RMW	0.0743	0.050	1.479	0.141	-0.025	0.173
CMA	-0.2071	0.061	-3.408	0.001	-0.327	-0.087
R-squared	0.941					
Adj. R-squared	0.940					
No. Observations	232					

Table A.26: ESG Score Level Bottom - Controversies Score Level Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	-0.0005	0.001	-0.736	0.463	-0.002	0.001
Mkt-RF	0.9744	0.017	57.714	0.000	0.941	1.008
SMB	-0.0749	0.029	-2.616	0.010	-0.131	-0.018
HML	0.1779	0.027	6.610	0.000	0.125	0.231
RMW	0.0168	0.040	0.424	0.672	-0.061	0.095
CMA	0.0557	0.048	1.161	0.247	-0.039	0.150
R-squared	0.956					
Adj. R-squared	0.956					
No. Observations	232					

Table A.27: ESG Score Level Top - Controversies Score Level Bottom Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	-0.0004	0.001	-0.534	0.594	-0.002	0.001
Mkt-RF	1.0046	0.021	48.018	0.000	0.963	1.046
SMB	0.0483	0.036	1.361	0.175	-0.022	0.118
HML	0.0810	0.033	2.427	0.016	0.015	0.147
RMW	0.0115	0.049	0.233	0.816	-0.085	0.108
CMA	0.0378	0.059	0.636	0.526	-0.079	0.155
R-squared	0.939					
Adj. R-squared	0.938					
No. Observations	232					

Table A.28: ESG Score Level Top - Controversies Score Level Top Portfolio

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0020	0.001	1.970	0.050	-8.82e-07	0.004
Mkt-RF	0.0285	0.026	1.095	0.275	-0.023	0.080
SMB	0.3280	0.044	7.430	0.000	0.241	0.415
HML	-0.1492	0.041	-3.597	0.000	-0.231	-0.067
RMW	0.0591	0.061	0.966	0.335	-0.061	0.180
CMA	-0.2564	0.074	-3.468	0.001	-0.402	-0.111
R-squared	0.300					
Adj. R-squared	0.284					
No. Observations	232					

Table A.29: ESG Factor - Long: ESG Bottom/Controversies Top, Short: ESG Top/-Controversies Bottom

A.2 Turbulent Market Phases

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0013	0.001	0.924	0.359	-0.001	0.004
Mkt-RF	0.9697	0.024	41.072	0.000	0.922	1.017
SMB	0.0157	0.056	0.283	0.778	-0.095	0.127
HML	0.1973	0.041	4.761	0.000	0.114	0.280
RMW	-0.0849	0.075	-1.128	0.264	-0.235	0.066
CMA	-0.0191	0.086	-0.222	0.825	-0.192	0.153
R-squared	0.983					
Adj. R-squared	0.981					
No. Observations	67					

Table A.30: ESG Score Level Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0039	0.002	1.951	0.056	-9.7e-05	0.008
Mkt-RF	1.0117	0.035	29.027	0.000	0.942	1.081
SMB	0.2693	0.082	3.283	0.002	0.105	0.433
HML	0.0833	0.061	1.362	0.178	-0.039	0.206
RMW	0.0202	0.111	0.182	0.856	-0.202	0.242
CMA	-0.2026	0.127	-1.592	0.117	-0.457	0.052
R-squared	0.968					
Adj. R-squared	0.966					
No. Observations	67					

Table A.31: ESG Score Level Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0009	0.001	0.608	0.546	-0.002	0.004
Mkt-RF	0.9894	0.026	38.503	0.000	0.938	1.041
SMB	0.1582	0.060	2.615	0.011	0.037	0.279
HML	0.0543	0.045	1.203	0.234	-0.036	0.144
RMW	0.0876	0.082	1.069	0.289	-0.076	0.251
CMA	-0.0908	0.094	-0.968	0.337	-0.278	0.097
R-squared	0.980					
Adj. R-squared	0.978					
No. Observations	67					

Table A.32: ESG Score Change Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0036	0.002	1.786	0.079	-0.000	0.008
Mkt-RF	1.0031	0.034	29.129	0.000	0.934	1.072
SMB	0.1956	0.081	2.413	0.019	0.034	0.358
HML	0.2317	0.060	3.833	0.000	0.111	0.353
RMW	-0.0659	0.110	-0.600	0.551	-0.285	0.154
CMA	-0.1109	0.126	-0.882	0.381	-0.362	0.141
R-squared	0.969					
Adj. R-squared	0.967					
No. Observations	67					

Table A.33: ESG Score Ch. Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0003	0.001	0.224	0.823	-0.002	0.003
Mkt-RF	0.9701	0.023	42.887	0.000	0.925	1.015
SMB	0.0199	0.053	0.374	0.709	-0.087	0.126
HML	0.1457	0.040	3.670	0.001	0.066	0.225
RMW	-0.0157	0.072	-0.218	0.828	-0.160	0.129
CMA	-0.0047	0.083	-0.056	0.955	-0.170	0.161
R-squared	0.983					
Adj. R-squared	0.982					
No. Observations	67					

Table A.34: E Score Level Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0058	0.002	2.856	0.006	0.002	0.010
Mkt-RF	0.9650	0.035	27.221	0.000	0.894	1.036
SMB	0.2263	0.083	2.712	0.009	0.059	0.393
HML	0.2316	0.062	3.722	0.000	0.107	0.356
RMW	-0.0475	0.113	-0.420	0.676	-0.274	0.179
CMA	-0.2527	0.129	-1.952	0.056	-0.512	0.006
R-squared	0.967					
Adj. R-squared	0.964					
No. Observations	67					

Table A.35: E Score Level Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0021	0.002	1.323	0.191	-0.001	0.005
Mkt-RF	1.0296	0.027	37.955	0.000	0.975	1.084
SMB	0.0899	0.064	1.408	0.164	-0.038	0.218
HML	0.1353	0.048	2.842	0.006	0.040	0.231
RMW	-0.1328	0.086	-1.536	0.130	-0.306	0.040
CMA	-0.0072	0.099	-0.073	0.942	-0.205	0.191
R-squared	0.980					
Adj. R-squared	0.978					
No. Observations	67					

Table A.36: E Score Change Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0027	0.002	1.597	0.115	-0.001	0.006
Mkt-RF	1.0226	0.030	34.429	0.000	0.963	1.082
SMB	0.2188	0.070	3.130	0.003	0.079	0.359
HML	0.2912	0.052	5.586	0.000	0.187	0.395
RMW	0.1533	0.095	1.618	0.111	-0.036	0.343
CMA	-0.1288	0.108	-1.187	0.240	-0.346	0.088
R-squared	0.978					
Adj. R-squared	0.976					
No. Observations	67					

Table A.37: E Score Change Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0018	0.001	1.370	0.176	-0.001	0.004
Mkt-RF	0.9871	0.023	42.883	0.000	0.941	1.033
SMB	0.0471	0.054	0.869	0.388	-0.061	0.155
HML	0.1660	0.040	4.110	0.000	0.085	0.247
RMW	-0.1646	0.073	-2.243	0.029	-0.311	-0.018
CMA	0.0030	0.084	0.035	0.972	-0.165	0.171
R-squared	0.984					
Adj. R-squared	0.983					
No. Observations	67					

Table A.38: S Score Level Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0022	0.002	1.106	0.273	-0.002	0.006
Mkt-RF	0.9944	0.034	29.047	0.000	0.926	1.063
SMB	0.3494	0.081	4.337	0.000	0.188	0.511
HML	0.0554	0.060	0.922	0.360	-0.065	0.176
RMW	0.1155	0.109	1.058	0.294	-0.103	0.334
CMA	-0.1761	0.125	-1.408	0.164	-0.426	0.074
R-squared	0.969					
Adj. R-squared	0.966					
No. Observations	67					

Table A.39: S Score Level Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0023	0.001	1.578	0.120	-0.001	0.005
Mkt-RF	1.0052	0.025	40.422	0.000	0.955	1.055
SMB	0.1106	0.059	1.889	0.064	-0.006	0.228
HML	0.1843	0.044	4.224	0.000	0.097	0.272
RMW	-0.0547	0.079	-0.690	0.493	-0.213	0.104
CMA	-0.0560	0.091	-0.617	0.540	-0.238	0.126
R-squared	0.983					
Adj. R-squared	0.981					
No. Observations	67					

Table A.40: S Score Change Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0033	0.002	1.833	0.072	-0.000	0.007
Mkt-RF	1.0262	0.031	33.231	0.000	0.964	1.088
SMB	0.1758	0.073	2.419	0.019	0.031	0.321
HML	0.2211	0.054	4.079	0.000	0.113	0.330
RMW	-0.0180	0.098	-0.183	0.856	-0.215	0.179
CMA	-0.0427	0.113	-0.379	0.706	-0.268	0.183
R-squared	0.976					
Adj. R-squared	0.974					
No. Observations	67					

Table A.41: S Score Change Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	-0.0004	0.002	-0.281	0.780	-0.004	0.003
Mkt-RF	0.9804	0.027	36.029	0.000	0.926	1.035
SMB	0.1662	0.064	2.595	0.012	0.038	0.294
HML	0.1783	0.048	3.734	0.000	0.083	0.274
RMW	0.1330	0.087	1.532	0.131	-0.041	0.306
CMA	0.0025	0.099	0.025	0.980	-0.196	0.201
R-squared	0.978					
Adj. R-squared	0.976					
No. Observations	67					

Table A.42: G Score Level Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0044	0.002	2.061	0.044	0.000	0.009
Mkt-RF	1.0270	0.037	27.863	0.000	0.953	1.101
SMB	0.1840	0.087	2.122	0.038	0.011	0.357
HML	0.0817	0.065	1.263	0.211	-0.048	0.211
RMW	-0.1071	0.118	-0.911	0.366	-0.342	0.128
CMA	-0.1283	0.135	-0.953	0.344	-0.397	0.141
R-squared	0.964					
Adj. R-squared	0.961					
No. Observations	67					

Table A.43: G Score Level Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0009	0.001	0.596	0.554	-0.002	0.004
Mkt-RF	1.0024	0.026	38.837	0.000	0.951	1.054
SMB	0.1987	0.061	3.271	0.002	0.077	0.320
HML	0.1014	0.045	2.239	0.029	0.011	0.192
RMW	0.0191	0.082	0.232	0.817	-0.145	0.184
CMA	-0.0730	0.094	-0.774	0.442	-0.261	0.116
R-squared	0.981					
Adj. R-squared	0.980					
No. Observations	67					

Table A.44: G Score Change Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0036	0.002	2.097	0.040	0.000	0.007
Mkt-RF	1.0126	0.030	34.236	0.000	0.953	1.072
SMB	0.1661	0.070	2.386	0.020	0.027	0.305
HML	0.1734	0.052	3.340	0.001	0.070	0.277
RMW	-0.0903	0.094	-0.958	0.342	-0.279	0.098
CMA	-0.0796	0.108	-0.737	0.464	-0.296	0.136
R-squared	0.977					
Adj. R-squared	0.975					
No. Observations	67					

Table A.45: G Score Ch. Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0033	0.002	1.899	0.062	-0.000	0.007
Mkt-RF	0.9990	0.030	33.405	0.000	0.939	1.059
SMB	0.2362	0.070	3.356	0.001	0.095	0.377
HML	0.1350	0.052	2.572	0.013	0.030	0.240
RMW	0.0236	0.095	0.248	0.805	-0.167	0.214
CMA	-0.0925	0.109	-0.847	0.400	-0.311	0.126
R-squared	0.976					
Adj. R-squared	0.974					
No. Observations	67					

Table A.46: Controversies Score Level Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0006	0.001	0.548	0.585	-0.002	0.003
Mkt-RF	1.0017	0.020	50.763	0.000	0.962	1.041
SMB	0.0327	0.046	0.703	0.485	-0.060	0.126
HML	0.1610	0.035	4.649	0.000	0.092	0.230
RMW	-0.1640	0.063	-2.606	0.011	-0.290	-0.038
CMA	-0.0087	0.072	-0.121	0.904	-0.153	0.135
R-squared	0.988					
Adj. R-squared	0.988					
No. Observations	67					

Table A.47: Controversies Score Level Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0013	0.002	0.685	0.496	-0.003	0.005
Mkt-RF	1.0549	0.034	31.247	0.000	0.987	1.122
SMB	0.1573	0.079	1.980	0.052	-0.002	0.316
HML	0.1218	0.059	2.056	0.044	0.003	0.240
RMW	-0.1703	0.108	-1.582	0.119	-0.386	0.045
CMA	0.1286	0.123	1.043	0.301	-0.118	0.375
R-squared	0.971					
Adj. R-squared	0.968					
No. Observations	67					

Table A.48: Controversies Score Change Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0015	0.001	1.191	0.238	-0.001	0.004
Mkt-RF	0.9847	0.021	46.581	0.000	0.942	1.027
SMB	0.0649	0.050	1.304	0.197	-0.035	0.164
HML	0.1698	0.037	4.576	0.000	0.096	0.244
RMW	-0.1228	0.067	-1.822	0.073	-0.258	0.012
CMA	-0.1069	0.077	-1.384	0.171	-0.261	0.047
R-squared	0.987					
Adj. R-squared	0.986					
No. Observations	67					

Table A.49: Controversies Score Ch. Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0019	0.001	1.392	0.169	-0.001	0.005
Mkt-RF	0.9790	0.024	41.443	0.000	0.932	1.026
SMB	0.1318	0.056	2.370	0.021	0.021	0.243
HML	0.1648	0.041	3.974	0.000	0.082	0.248
RMW	-0.1060	0.075	-1.408	0.164	-0.257	0.045
CMA	0.0226	0.086	0.262	0.794	-0.150	0.195
R-squared	0.984					
Adj. R-squared	0.982					
No. Observations	67					

Table A.50: ESG Combined Score Level Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0031	0.002	1.705	0.093	-0.001	0.007
Mkt-RF	1.0355	0.031	33.177	0.000	0.973	1.098
SMB	0.2018	0.073	2.748	0.008	0.055	0.349
HML	0.0603	0.055	1.101	0.275	-0.049	0.170
RMW	0.0561	0.100	0.563	0.575	-0.143	0.255
CMA	-0.1201	0.114	-1.053	0.296	-0.348	0.108
R-squared	0.974					
Adj. R-squared	0.972					
No. Observations	67					

Table A.51: ESG Combined Score Level Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0011	0.002	0.723	0.473	-0.002	0.004
Mkt-RF	1.0086	0.026	38.189	0.000	0.956	1.061
SMB	0.1365	0.062	2.196	0.032	0.012	0.261
HML	0.0769	0.046	1.660	0.102	-0.016	0.170
RMW	0.0349	0.084	0.414	0.680	-0.133	0.203
CMA	-0.0550	0.096	-0.571	0.570	-0.248	0.138
R-squared	0.980					
Adj. R-squared	0.978					
No. Observations	67					

Table A.52: ESG Combined Score Change Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0036	0.002	2.220	0.030	0.000	0.007
Mkt-RF	1.0122	0.028	36.488	0.000	0.957	1.068
SMB	0.1259	0.065	1.929	0.058	-0.005	0.256
HML	0.2076	0.049	4.264	0.000	0.110	0.305
RMW	-0.0827	0.088	-0.935	0.353	-0.260	0.094
CMA	-0.1244	0.101	-1.228	0.224	-0.327	0.078
R-squared	0.979					
Adj. R-squared	0.978					
No. Observations	67					

Table A.53: ESG Combined Score Ch. Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0015	0.003	0.538	0.593	-0.004	0.007
Mkt-RF	1.0870	0.047	23.156	0.000	0.993	1.181
SMB	0.1136	0.110	1.028	0.308	-0.107	0.334
HML	0.1550	0.082	1.882	0.065	-0.010	0.320
RMW	-0.1020	0.150	-0.682	0.498	-0.401	0.197
CMA	-0.0294	0.171	-0.172	0.864	-0.372	0.313
R-squared	0.948					
Adj. R-squared	0.944					
No. Observations	67					

Table A.54: ESG Score Level Bottom - Controversies Score Level Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0045	0.002	2.035	0.046	7.84e-05	0.009
Mkt-RF	0.9885	0.039	25.569	0.000	0.911	1.066
SMB	0.3036	0.091	3.337	0.001	0.122	0.486
HML	0.0740	0.068	1.090	0.280	-0.062	0.210
RMW	0.0603	0.123	0.489	0.627	-0.186	0.307
CMA	-0.2103	0.141	-1.489	0.142	-0.493	0.072
R-squared	0.960					
Adj. R-squared	0.957					
No. Observations	67					

Table A.55: ESG Score Level Bottom - Controversies Score Level Top Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0008	0.002	0.519	0.606	-0.002	0.004
Mkt-RF	0.9599	0.027	36.005	0.000	0.907	1.013
SMB	-0.0622	0.063	-0.991	0.325	-0.188	0.063
HML	0.2433	0.047	5.199	0.000	0.150	0.337
RMW	-0.0557	0.085	-0.655	0.515	-0.226	0.114
CMA	0.0031	0.097	0.032	0.975	-0.192	0.198
R-squared	0.977					
Adj. R-squared	0.975					
No. Observations	67					

Table A.56: ESG Score Level Top - Controversies Score Level Bottom Portfolio - Turbulent

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0022	0.002	1.136	0.261	-0.002	0.006
Mkt-RF	0.9963	0.033	30.312	0.000	0.931	1.062
SMB	0.0749	0.077	0.969	0.336	-0.080	0.230
HML	0.1388	0.058	2.406	0.019	0.023	0.254
RMW	-0.1915	0.105	-1.827	0.073	-0.401	0.018
CMA	-0.0176	0.120	-0.147	0.884	-0.258	0.222
R-squared	0.969					
Adj. R-squared	0.966					
No. Observations	67					

Table A.57: ESG Score Level Top - Controversies Score Level Top Portfolio - Turbulent

A.3 Calm Market Phases

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0002	0.001	0.342	0.733	-0.001	0.001
Mkt-RF	0.9511	0.022	42.938	0.000	0.907	0.995
SMB	-0.0572	0.025	-2.286	0.024	-0.107	-0.008
HML	0.0047	0.030	0.156	0.876	-0.055	0.065
RMW	0.0856	0.037	2.322	0.022	0.013	0.158
CMA	0.2695	0.050	5.408	0.000	0.171	0.368
R-squared	0.934					
Adj. R-squared	0.932					
No. Observations	165					

Table A.58: ESG Score Level Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0030	0.001	3.756	0.000	0.001	0.005
Mkt-RF	0.9856	0.029	33.688	0.000	0.928	1.043
SMB	0.1803	0.033	5.453	0.000	0.115	0.246
HML	-0.0523	0.040	-1.305	0.194	-0.131	0.027
RMW	0.0331	0.049	0.680	0.498	-0.063	0.129
CMA	-0.1124	0.066	-1.707	0.090	-0.242	0.018
R-squared	0.900					
Adj. R-squared	0.896					
No. Observations	165					

Table A.59: ESG Score Level Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0015	0.001	2.538	0.012	0.000	0.003
Mkt-RF	0.9212	0.023	40.699	0.000	0.876	0.966
SMB	0.0467	0.025	1.839	0.068	-0.003	0.097
HML	0.0051	0.031	0.168	0.867	-0.055	0.066
RMW	-0.0203	0.040	-0.508	0.612	-0.099	0.059
CMA	0.0672	0.051	1.313	0.191	-0.034	0.168
R-squared	0.931					
Adj. R-squared	0.929					
No. Observations	152					

Table A.60: ESG Score Change Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0012	0.001	1.610	0.110	-0.000	0.003
Mkt-RF	0.9869	0.028	35.212	0.000	0.932	1.042
SMB	0.0580	0.031	1.846	0.067	-0.004	0.120
HML	0.0412	0.038	1.090	0.278	-0.034	0.116
RMW	0.0753	0.049	1.523	0.130	-0.022	0.173
CMA	0.0383	0.063	0.605	0.546	-0.087	0.164
R-squared	0.909					
Adj. R-squared	0.905					
No. Observations	152					

Table A.61: ESG Score Ch. Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	-0.0004	0.001	-0.593	0.554	-0.002	0.001
Mkt-RF	0.9571	0.022	42.985	0.000	0.913	1.001
SMB	-0.0040	0.025	-0.160	0.873	-0.054	0.046
HML	0.0196	0.030	0.643	0.521	-0.041	0.080
RMW	0.1567	0.037	4.225	0.000	0.083	0.230
CMA	0.1841	0.050	3.676	0.000	0.085	0.283
R-squared	0.932					
Adj. R-squared	0.930					
No. Observations	165					

Table A.62: E Score Level Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0027	0.001	3.841	0.000	0.001	0.004
Mkt-RF	0.9823	0.026	37.335	0.000	0.930	1.034
SMB	0.1356	0.030	4.559	0.000	0.077	0.194
HML	-0.0183	0.036	-0.509	0.612	-0.090	0.053
RMW	-0.0733	0.044	-1.672	0.097	-0.160	0.013
CMA	-0.0751	0.059	-1.268	0.207	-0.192	0.042
R-squared	0.919					
Adj. R-squared	0.917					
No. Observations	165					

Table A.63: E Score Level Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0010	0.001	1.322	0.188	-0.000	0.002
Mkt-RF	0.8927	0.028	31.701	0.000	0.837	0.948
SMB	0.0675	0.032	2.136	0.034	0.005	0.130
HML	-0.0381	0.038	-1.002	0.318	-0.113	0.037
RMW	0.0562	0.050	1.131	0.260	-0.042	0.154
CMA	0.1769	0.064	2.778	0.006	0.051	0.303
R-squared	0.892					
Adj. R-squared	0.889					
No. Observations	152					

Table A.64: E Score Change Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0008	0.001	0.938	0.350	-0.001	0.002
Mkt-RF	0.9819	0.030	32.621	0.000	0.922	1.041
SMB	0.0582	0.034	1.723	0.087	-0.009	0.125
HML	0.0618	0.041	1.522	0.130	-0.018	0.142
RMW	0.1147	0.053	2.160	0.032	0.010	0.220
CMA	0.1453	0.068	2.135	0.034	0.011	0.280
R-squared	0.898					
Adj. R-squared	0.894					
No. Observations	152					

Table A.65: E Score Change Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	-0.0002	0.001	-0.332	0.740	-0.001	0.001
Mkt-RF	0.9737	0.020	48.210	0.000	0.934	1.014
SMB	-0.0460	0.023	-2.017	0.045	-0.091	-0.001
HML	0.0258	0.028	0.933	0.352	-0.029	0.080
RMW	0.0637	0.034	1.896	0.060	-0.003	0.130
CMA	0.2087	0.045	4.593	0.000	0.119	0.298
R-squared	0.947					
Adj. R-squared	0.945					
No. Observations	165					

Table A.66: S Score Level Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0027	0.001	3.645	0.000	0.001	0.004
Mkt-RF	0.9716	0.027	35.471	0.000	0.918	1.026
SMB	0.1693	0.031	5.469	0.000	0.108	0.230
HML	-0.0321	0.038	-0.855	0.394	-0.106	0.042
RMW	0.0277	0.046	0.607	0.545	-0.062	0.118
CMA	-0.0261	0.062	-0.424	0.672	-0.148	0.096
R-squared	0.910					
Adj. R-squared	0.907					
No. Observations	165					

Table A.67: S Score Level Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0007	0.001	0.994	0.322	-0.001	0.002
Mkt-RF	0.9449	0.026	36.019	0.000	0.893	0.997
SMB	0.0656	0.029	2.230	0.027	0.007	0.124
HML	0.0266	0.035	0.751	0.454	-0.043	0.097
RMW	0.0483	0.046	1.043	0.299	-0.043	0.140
CMA	0.0703	0.059	1.186	0.238	-0.047	0.188
R-squared	0.914					
Adj. R-squared	0.911					
No. Observations	152					

Table A.68: S Score Change Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0008	0.001	1.116	0.266	-0.001	0.002
Mkt-RF	0.9790	0.025	38.863	0.000	0.929	1.029
SMB	0.0621	0.028	2.199	0.029	0.006	0.118
HML	-0.0028	0.034	-0.083	0.934	-0.070	0.064
RMW	0.0881	0.044	1.982	0.049	0.000	0.176
CMA	0.1073	0.057	1.884	0.062	-0.005	0.220
R-squared	0.924					
Adj. R-squared	0.921					
No. Observations	152					

Table A.69: S Score Change Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0010	0.001	1.699	0.091	-0.000	0.002
Mkt-RF	0.9459	0.022	42.172	0.000	0.902	0.990
SMB	0.0199	0.025	0.785	0.434	-0.030	0.070
HML	0.0808	0.031	2.632	0.009	0.020	0.142
RMW	0.0812	0.037	2.175	0.031	0.007	0.155
CMA	0.1731	0.050	3.430	0.001	0.073	0.273
R-squared	0.934					
Adj. R-squared	0.932					
No. Observations	165					

Table A.70: G Score Level Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0015	0.001	2.021	0.045	3.49e-05	0.003
Mkt-RF	0.9911	0.028	35.320	0.000	0.936	1.046
SMB	0.0941	0.032	2.967	0.003	0.031	0.157
HML	-0.0592	0.038	-1.541	0.125	-0.135	0.017
RMW	-0.0083	0.047	-0.178	0.859	-0.101	0.084
CMA	-0.0404	0.063	-0.640	0.523	-0.165	0.084
R-squared	0.906					
Adj. R-squared	0.903					
No. Observations	165					

Table A.71: G Score Level Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0007	0.001	1.282	0.202	-0.000	0.002
Mkt-RF	0.9625	0.022	44.736	0.000	0.920	1.005
SMB	0.0287	0.024	1.190	0.236	-0.019	0.076
HML	-0.0091	0.029	-0.312	0.756	-0.066	0.048
RMW	0.0234	0.038	0.618	0.538	-0.052	0.098
CMA	0.1598	0.049	3.285	0.001	0.064	0.256
R-squared	0.942					
Adj. R-squared	0.940					
No. Observations	152					

Table A.72: G Score Change Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0008	0.001	1.039	0.301	-0.001	0.002
Mkt-RF	0.9873	0.028	34.827	0.000	0.931	1.043
SMB	0.1012	0.032	3.183	0.002	0.038	0.164
HML	0.0105	0.038	0.274	0.785	-0.065	0.086
RMW	0.0818	0.050	1.635	0.104	-0.017	0.181
CMA	0.0813	0.064	1.269	0.207	-0.045	0.208
R-squared	0.909					
Adj. R-squared	0.906					
No. Observations	152					

Table A.73: G Score Ch. Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0013	0.001	1.978	0.050	1.92e-06	0.003
Mkt-RF	0.9722	0.025	39.044	0.000	0.923	1.021
SMB	0.1207	0.028	4.289	0.000	0.065	0.176
HML	-0.0119	0.034	-0.350	0.727	-0.079	0.055
RMW	0.0237	0.041	0.572	0.568	-0.058	0.106
CMA	0.0678	0.056	1.210	0.228	-0.043	0.178
R-squared	0.924					
Adj. R-squared	0.922					
No. Observations	165					

Table A.74: Controversies Score Level Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0008	0.001	1.390	0.167	-0.000	0.002
Mkt-RF	0.9657	0.022	44.730	0.000	0.923	1.008
SMB	-0.0327	0.024	-1.340	0.182	-0.081	0.016
HML	0.0609	0.030	2.060	0.041	0.003	0.119
RMW	0.0439	0.036	1.222	0.223	-0.027	0.115
CMA	0.1075	0.049	2.213	0.028	0.012	0.203
R-squared	0.938					
Adj. R-squared	0.936					
No. Observations	165					

Table A.75: Controversies Score Level Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0016	0.001	2.059	0.041	6.52e-05	0.003
Mkt-RF	0.9680	0.030	32.706	0.000	0.909	1.026
SMB	-0.0017	0.033	-0.050	0.960	-0.067	0.064
HML	-0.0027	0.040	-0.066	0.947	-0.082	0.076
RMW	0.0904	0.052	1.732	0.085	-0.013	0.194
CMA	0.2386	0.067	3.564	0.000	0.106	0.371
R-squared	0.896					
Adj. R-squared	0.892					
No. Observations	152					

Table A.76: Controversies Score Change Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0004	0.001	0.504	0.615	-0.001	0.002
Mkt-RF	0.9731	0.027	36.482	0.000	0.920	1.026
SMB	0.0012	0.030	0.040	0.968	-0.058	0.060
HML	0.0266	0.036	0.738	0.461	-0.045	0.098
RMW	0.0248	0.047	0.527	0.599	-0.068	0.118
CMA	0.1512	0.060	2.506	0.013	0.032	0.270
R-squared	0.915					
Adj. R-squared	0.912					
No. Observations	152					

Table A.77: Controversies Score Ch. Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0008	0.001	1.262	0.209	-0.000	0.002
Mkt-RF	0.9446	0.024	38.707	0.000	0.896	0.993
SMB	-0.0156	0.028	-0.567	0.572	-0.070	0.039
HML	-0.0245	0.033	-0.732	0.466	-0.090	0.042
RMW	0.0775	0.041	1.906	0.058	-0.003	0.158
CMA	0.2461	0.055	4.482	0.000	0.138	0.354
R-squared	0.920					
Adj. R-squared	0.917					
No. Observations	165					

Table A.78: ESG Combined Score Level Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0025	0.001	3.267	0.001	0.001	0.004
Mkt-RF	1.0033	0.029	35.095	0.000	0.947	1.060
SMB	0.1760	0.032	5.447	0.000	0.112	0.240
HML	-0.0337	0.039	-0.860	0.391	-0.111	0.044
RMW	0.0444	0.048	0.932	0.353	-0.050	0.138
CMA	-0.1308	0.064	-2.034	0.044	-0.258	-0.004
R-squared	0.906					
Adj. R-squared	0.903					
No. Observations	165					

Table A.79: ESG Combined Score Level Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0012	0.001	1.799	0.074	-0.000	0.003
Mkt-RF	0.9422	0.025	38.032	0.000	0.893	0.991
SMB	0.0536	0.028	1.931	0.055	-0.001	0.109
HML	-0.0245	0.033	-0.732	0.465	-0.091	0.042
RMW	0.0020	0.044	0.046	0.963	-0.084	0.088
CMA	0.1347	0.056	2.404	0.017	0.024	0.245
R-squared	0.922					
Adj. R-squared	0.920					
No. Observations	152					

Table A.80: ESG Combined Score Change Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0009	0.001	1.244	0.216	-0.001	0.002
Mkt-RF	0.9694	0.026	37.041	0.000	0.918	1.021
SMB	0.0421	0.029	1.435	0.154	-0.016	0.100
HML	0.0333	0.035	0.943	0.347	-0.036	0.103
RMW	0.0451	0.046	0.976	0.331	-0.046	0.136
CMA	0.0642	0.059	1.085	0.280	-0.053	0.181
R-squared	0.917					
Adj. R-squared	0.914					
No. Observations	152					

Table A.81: ESG Combined Score Ch. Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0035	0.002	2.272	0.024	0.000	0.007
Mkt-RF	1.0030	0.057	17.446	0.000	0.889	1.117
SMB	0.0662	0.065	1.019	0.310	-0.062	0.195
HML	-0.1102	0.079	-1.399	0.164	-0.266	0.045
RMW	0.0236	0.096	0.246	0.806	-0.166	0.213
CMA	0.0147	0.129	0.114	0.909	-0.241	0.270
R-squared	0.695					
Adj. R-squared	0.685					
No. Observations	165					

Table A.82: ESG Score Level Bottom - Controversies Score Level Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0025	0.001	2.904	0.004	0.001	0.004
Mkt-RF	0.9790	0.032	30.807	0.000	0.916	1.042
SMB	0.2069	0.036	5.760	0.000	0.136	0.278
HML	-0.0464	0.044	-1.065	0.288	-0.132	0.040
RMW	0.0484	0.053	0.914	0.362	-0.056	0.153
CMA	-0.1210	0.071	-1.692	0.093	-0.262	0.020
R-squared	0.884					
Adj. R-squared	0.880					
No. Observations	165					

Table A.83: ESG Score Level Bottom - Controversies Score Level Top Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	2.933e-05	0.001	0.040	0.968	-0.001	0.001
Mkt-RF	0.9489	0.027	34.734	0.000	0.895	1.003
SMB	-0.0935	0.031	-3.029	0.003	-0.155	-0.033
HML	0.0573	0.037	1.532	0.127	-0.017	0.131
RMW	0.0543	0.045	1.193	0.235	-0.036	0.144
CMA	0.2193	0.061	3.568	0.000	0.098	0.341
R-squared	0.902					
Adj. R-squared	0.899					
No. Observations	165					

Table A.84: ESG Score Level Top - Controversies Score Level Bottom Portfolio - Calm

	coef	std err	t	P> |t|	[0.025	0.975]
const	0.0005	0.001	0.602	0.548	-0.001	0.002
Mkt-RF	0.9345	0.032	28.776	0.000	0.870	0.999
SMB	0.0311	0.037	0.847	0.398	-0.041	0.104
HML	-0.0644	0.044	-1.447	0.150	-0.152	0.023
RMW	0.1051	0.054	1.944	0.054	-0.002	0.212
CMA	0.2922	0.073	3.999	0.000	0.148	0.436
R-squared	0.866					
Adj. R-squared	0.862					
No. Observations	165					

Table A.85: ESG Score Level Top - Controversies Score Level Top Portfolio - Calm

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