

“Profiting from Regulation: Evidence from the European Carbon Market,”
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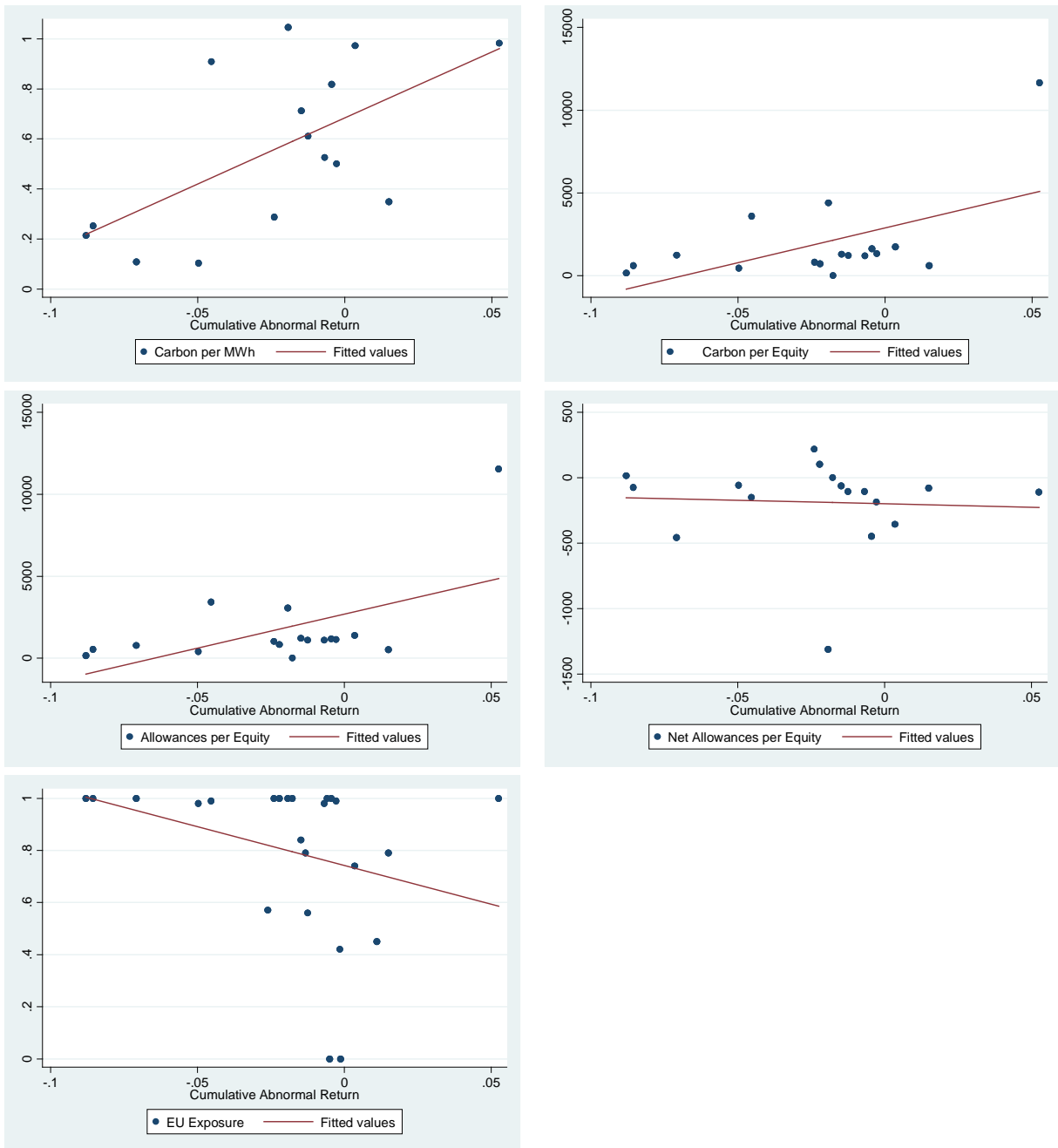


Figure A1: Scatter Plots Corresponding to Table 3

Table A1: Aggregate Emissions and Allowances (in Tonnes) by Industry

Industry Description	Allowances	Emissions	Net Allowances
Coal and lignite mining	251,195	333,193	-81,998
Crude petroleum extraction	81,100,000	77,400,000	3,700,000
Basic metals	40,800,000	34,600,000	6,200,000
Sewage and refuse	0	0	0
Water transport	0	0	0
Refining and coke	6,734,260	6,167,242	567,018
Computer manufacturing	0	0	0
Metal ores mining	171,866	162,279	9,587
Tobacco manufacturing	13,427	12,243	1,184
Electricity and gas	442,000,000	487,000,000	-45,000,000
Real estate	40,773	35,298	5,475
Water	34,850	1,654	33,196
Land transport	0	0	0
Rubber and plastics	731,230	628,621	102,609
Computer activities	19,318	12,108	7,210
Other transport	81,709	92,004	-10,295
Hotels and restaurants	0	0	0
Motor vehicles	3,359,688	3,015,070	344,618
Radio and TV	25,928	16,885	9,043
Electrical machinery	65,289	64,063	1,226
Retail trade	0	0	0
Construction	301,825	266,969	34,856
Medical instruments	36,748	36,622	126
Publishing and printing	0	0	0
Air transport	15,583	16,258	-675
Pulp and paper	5,723,643	4,801,824	921,819
Food manufacturing	1,486,315	1,255,090	231,225
Other business activities	1,951,534	1,681,020	270,514
Auxiliary financials	0	0	0
Machinery	163,969	136,145	27,824
Chemicals	15,100,000	12,300,000	2,800,000
Financial intermediation	0	0	0
Apparel manufacturing	0	0	0
Post and telecomm	0	0	0
Furniture	0	0	0
Insurance	0	0	0
Recreational and cultural	277,170	260,720	16,450
Health and social work	0	0	0
Tanning leather	0	0	0
Fabricated metals	299,853	209,852	90,001
Nonmetallic manufacturing	49,800,000	46,000,000	3,800,000
Wholesale trade	0	0	0
Supporting transport	2,692,765	2,097,988	594,777
Other mining	433,782	385,346	48,436
Renting machinery	0	0	0
All Industries	653,712,720	678,988,494	-25,275,774

Table A2: Comparison of Standard Errors

	All Industries		Crude petroleum extraction		Basic metals		Electricity and gas	
Coefficient	-0.00499		-0.03172		-0.03065		-0.01714	
OLS S.E.	(0.00109) ***		(0.00715) ***		(0.00826) ***		(0.00627) ***	
Robust S.E.	(0.00120) ***		(0.01092) ***		(0.01122) ***		(0.00633) ***	
Cluster by Firm	(0.00116) ***		(0.00896) ***		(0.00924) ***		(0.00589) ***	
Cluster by Industry (NACE2)	(0.00181) ***		n/a		n/a		n/a	
Cluster by Date-Industry	(0.00167) ***		(0.01652) *		(0.01080) ***		(0.01395)	
Cluster by Date	(0.00256) *		(0.01654) *		(0.01081) ***		(0.01396)	
Two-Way Clustering	(0.00328)		(0.01772) *		(0.01176) ***		(0.01581)	

Notes: Standard errors are significant at the 10% (*), 5% (**) and 1% (***) levels. Two-way clustering is by firm and date.

Table A3: Standard Errors Clustered by Two-Digit NACE and Date

Industry Description	<i>Coef.</i>	<i>Cluster s.e. by Date</i>	<i>Two-Way Cluster s.e. (Firm & Date)</i>
Coal and lignite mining	-0.0319	(0.0209)	(0.0226)
Crude petroleum extraction	-0.0317	(0.0165) *	(0.0177) *
Basic metals	-0.0307	(0.0108) ***	(0.0118) ***
Sewage and refuse	-0.0272	(0.0121) **	(0.0132) **
Water transport	-0.0271	(0.0199)	(0.0193)
Refining and coke	-0.0266	(0.0149) *	(0.0163)
Computer manufacturing	-0.0228	(0.0069) ***	(0.0074) ***
Metal ores mining	-0.0228	(0.0232)	(0.0259)
Tobacco manufacturing	-0.0195	(0.0047) ***	(0.0050) ***
Electricity and gas	-0.0171	(0.0140)	(0.0158)
Real estate	-0.0165	(0.0033) ***	(0.0046) ***
Water	-0.0161	(0.0083) *	(0.0090) *
Land transport	-0.0114	(0.0104)	(0.0110)
Rubber and plastics	-0.0104	(0.0098)	(0.0111)
Computer activities	-0.0092	(0.0098)	(0.0104)
Other transport	-0.0090	(0.0105)	(0.0111)
Hotels and restaurants	-0.0086	(0.0043) **	(0.0049) *
Motor vehicles	-0.0084	(0.0182)	(0.0194)
Radio and TV	-0.0081	(0.0050)	(0.0054)
Electrical machinery	-0.0071	(0.0139)	(0.0146)
Retail trade	-0.0056	(0.0011) ***	(0.0011) ***
Construction	-0.0055	(0.0039)	(0.0042)
Medical instruments	-0.0046	(0.0065)	(0.0081)
Publishing and printing	-0.0035	(0.0059)	(0.0067)
Air transport	-0.0033	(0.0027)	(0.0029)
Pulp and paper	-0.0030	(0.0105)	(0.0114)
Food manufacturing	-0.0027	(0.0046)	(0.0052)
Other business activities	-0.0010	(0.0020)	(0.0023)
Auxiliary financials	-0.0002	(0.0031)	(0.0034)
Machinery	0.0000	(0.0062)	(0.0067)
Chemicals	0.0001	(0.0024)	(0.0036)
Financial intermediation	0.0005	(0.0009)	(0.0011)
Apparel manufacturing	0.0023	(0.0061)	(0.0070)
Post and telecomm	0.0025	(0.0011) **	(0.0011) **
Furniture	0.0030	(0.0036)	(0.0048)
Insurance	0.0039	(0.0079)	(0.0089)
Recreational and cultural	0.0050	(0.0095)	(0.0110)
Health and social work	0.0069	(0.0333)	(0.0304)
Tanning leather	0.0074	(0.0023) ***	(0.0026) ***
Fabricated metals	0.0081	(0.0076)	(0.0102)
Nonmetallic manufacturing	0.0091	(0.0151)	(0.0160)
Wholesale trade	0.0099	(0.0073)	(0.0080)
Supporting transport	0.0139	(0.0032) ***	(0.0055) **
Other mining	0.0158	(0.0288)	(0.0256)
Renting machinery	0.0216	(0.0230)	(0.0228)
All Industries	-0.0050	(0.0026) *	(0.0033)

Table A4: Robustness Results for Table 5

	Two-Way Clustering		Big Event		Early Years	
	(1)	(2)	(3)	(4)	(5)	(6)
Event	-0.005 (0.003)	-0.005 (0.005)	-0.019 *** (0.003)	-0.017 *** (0.005)	0.001 (0.002)	0.000 (0.002)
Dirty Output * Event	-0.018 * (0.009)	-0.008 (0.017)	-0.051 (0.039)	-0.017 * (0.009)	-0.008 (0.031)	-0.011 (0.010)
Dirty Input * Event	0.003 (0.071)		0.176 (0.199)		-0.009 (0.151)	
EU Exposure * Event		0.019 (0.019)		0.031 * (0.018)		0.000 (0.006)
Missing Exp. * Event		0.000 (0.004)		-0.002 (0.006)		0.003 (0.003)
DO * Expose * Event		-0.081 *** (0.019)		-0.057 (0.037)		0.030 (0.034)
DO * Missing * Event		-0.005 (0.007)		0.003 (0.036)		-0.004 (0.019)

Notes: See Table 5 for notes. Big event is defined as a 30-day window. “Early years” is an event date two years prior to the real date.