5.2 Carbon Emissions and Risk Factors

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November 2022

1 Regressions

Table 1: Carbon Premium and Risk Factors: log emissions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
MKTRF		0.000782		0.000232		-0.0000673		0.000245
		(0.000480)		(0.000617)		(0.000305)		(0.000353)
HML		-0.0000526		0.00175*		0.000867		-0.00104
		(0.000766)		(0.000922)		(0.000738)		(0.000719)
SMB		-0.0000794		0.00101		0.000158		0.000245
		(0.000673)		(0.000723)		(0.000411)		(0.000709)
CMA		0.00102		-0.000559		-0.000930		0.00157
		(0.000941)		(0.00156)		(0.00143)		(0.00102)
MOM		0.000262		-0.000140		0.000288		-0.000165
		(0.000508)		(0.000744)		(0.000434)		(0.000590)
BAB		-0.0954*		0.0477		0.0187		0.0228
		(0.0487)		(0.0776)		(0.0300)		(0.0409)
Constant	0.000728	0.00108	0.00149	0.000945	-0.00121	-0.00158	0.000955	0.000474
	(0.00140)	(0.00177)	(0.00293)	(0.00323)	(0.00177)	(0.00188)	(0.00162)	(0.00173)
Observations	135	135	133	133	135	135	135	135
R2-Adj								

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 2: Carbon Premium and Risk Factors: log emissions

	Δ S1		Δ S2		Δ TOTAL		Δ ENERGY	
(lr)2-3(lr)4-5(lr)6-7(lr)8-9	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
MKTRF		9.43e-09		9.50e-08**		3.04e-16		3.54e-10*
		(5.98e-09)		(3.91e-08)		(1.57e-15)		(1.87e-10)
HML		7.24e-09		-3.28e-08		1.19e-14		-2.19e-10
		(1.42e-08)		(8.86e-08)		(7.76e-15)		(5.04e-10)
SMB		3.73e-09		5.85e-08*		7.72e-15		6.88e-10
		(8.39e-09)		(3.21e-08)		(8.48e-15)		(5.48e-10)
CMA		-7.93e-10		3.70e-08		-1.10e-14		4.54e-10
		(1.15e-08)		(7.83e-08)		(1.06e-14)		(8.09e-10)
MOM		3.94e-09		2.12e-08		1.79e-15		1.76e-10
		(4.12e-09)		(2.78e-08)		(4.44e-15)		(3.50e-10)
BAB		7.65e-08		-0.00000692		7.61e-13		2.88e-08
		(0.000000463)		(0.00000441)		(4.98e-13)		(4.81e-08)
Constant	5.63e-09	-3.02e-09	9.09e-08	0.000000122	5.84e-15	-1.65e-15	1.17e-09	6.31e-10
	(1.59e-08)	(1.99e-08)	(0.000000105)	(0.000000125)	(9.36e-15)	(1.10e-14)	(1.09e-09)	(1.22e-09)
Observations	114	114	114	114	114	114	114	114
R2-Adj								

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3: Carbon Premium and Risk Factors: log emissions

	S1 INT		S2 INT		TOTAL INT		ENERGY INT	
(lr)2-3(lr)4-5(lr)6-7(lr)8-9	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
MKTRF		0.000000840		0.00000812		6.52e-13		2.66e-09
		(0.00000101)		(0.0000111)		(1.05e-12)		(7.65e-08)
HML		-0.000000937		0.0000380**		6.24e-13		-0.000000143
		(0.00000309)		(0.0000151)		(2.67e-12)		(0.000000244)
SMB		0.000000281		0.0000300*		1.26e-12		3.70e-08
		(0.00000141)		(0.0000157)		(1.70e-12)		(0.000000167)
CMA		0.00000466		-0.0000541**		-2.06e-12		5.82e-08
		(0.00000477)		(0.0000267)		(2.64e-12)		(0.000000312)
MOM		0.000000945		-0.00000380		-5.84e-13		-6.37e-08
		(0.00000121)		(0.0000144)		(1.04e-12)		(8.44e-08)
BAB		-0.000310*		-0.000657		-2.70e-10		-0.0000157
		(0.000174)		(0.00108)		(2.32e-10)		(0.0000163)
Constant	0.00000698	0.00000918	0.0000502*	0.0000654*	6.91e-12	1.11e-11	0.000000526	0.000000802
	(0.00000752)	(0.00000888)	(0.0000297)	(0.0000381)	(7.04e-12)	(9.83e-12)	(0.000000530)	(0.000000712)
Observations	135	135	135	135	135	135	135	135
R2-Adj								

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$