Online Appendix to: Industrial Composition of Syndicated Loans and Banks' Climate Commitments

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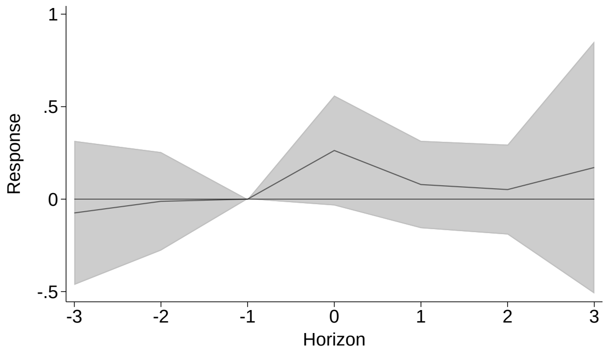
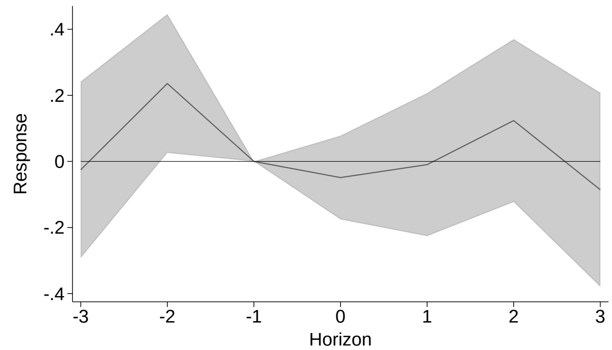
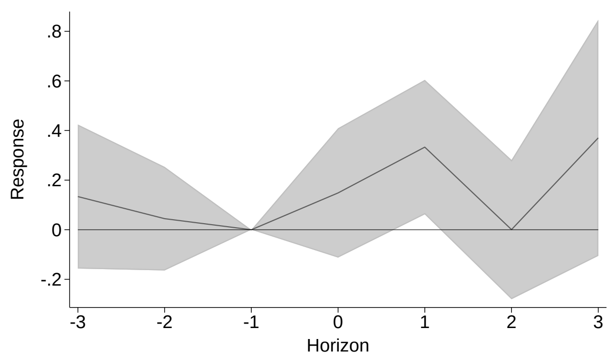


(a) PRI



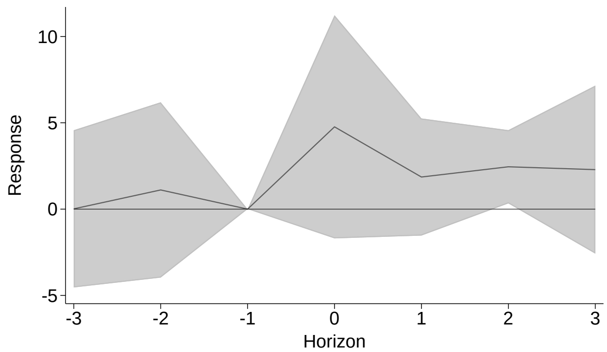
(b) TCFD



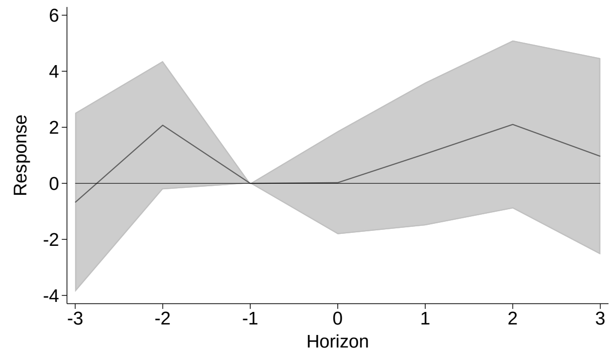
(c) PRB

Note: Dependent variable is the weighted average of log of total emissions over output in the country-industry of the borrower across all loans of a given bank in a given year. See equation (3) for the exact specification. Standard errors are clustered at the bank level and are robust to heteroskedasticity and serial correlation. 95% confidence bands.

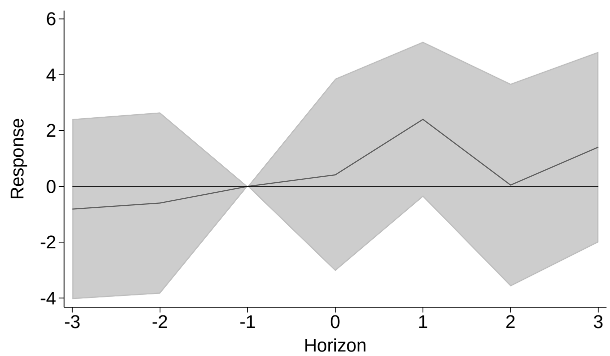
A.2 Bank Level LP-DiDs: Weighting With Facility Amount Per Contributor



(d) PRI



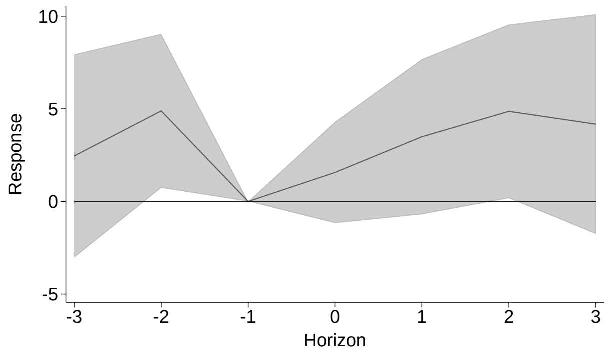
(e) TCFD



(f) PRB

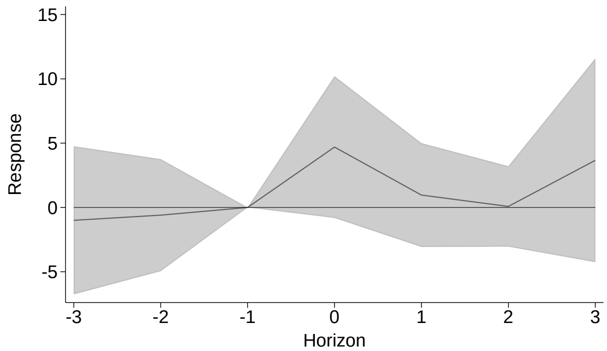
Note: Dependent variable is a emission exposure of bank loan portfolio, computed as a weighted average of the emission index of all loans originated by syndicates with participation of bank b in year t using loan amounts (converted to USD) divided by the number of participants as weights. See equation (3) for the exact specification. Standard errors are clustered at the bank level and are robust to heteroskedasticity and serial correlation. 95% confidence bands.

A.3 Bank Level LP-DiD: Response to Signing Any Commitment

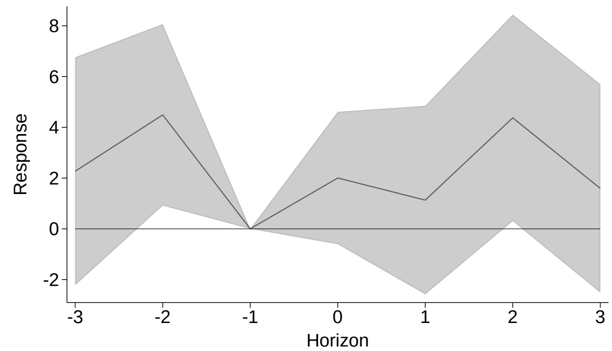


Note: Dependent variable is emission exposure. See equation (3) for the exact specification. Standard errors are clustered at the bank level and are robust to heteroskedasticity and serial correlation. 95% confidence bands.

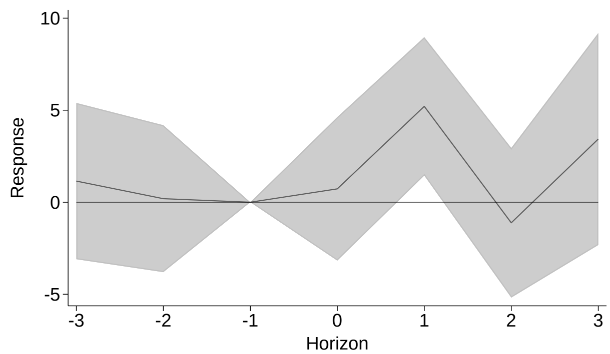
A.4 Bank Level LP-DiDs, Never Treated



(g) PRI



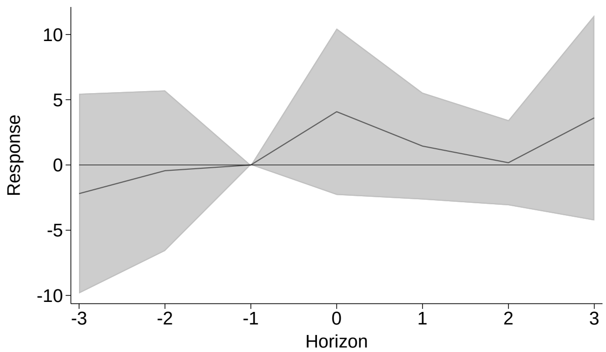
(h) TCFD



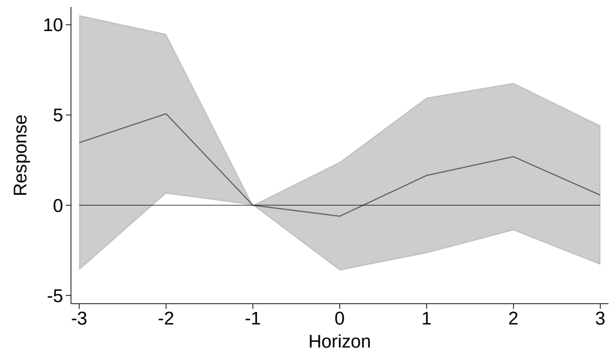
(i) PRB

Note: Dependent variable is emission exposure, only using the never treated population as the control group. See equation (3) for the exact specification. Standard errors are clustered at the bank level and are robust to heteroskedasticity and serial correlation. 95% confidence bands.

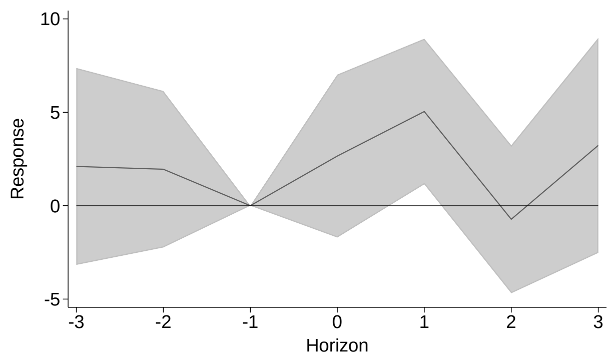
A.5 Bank Level LP-DiDs, No Composition Effects



(j) PRI



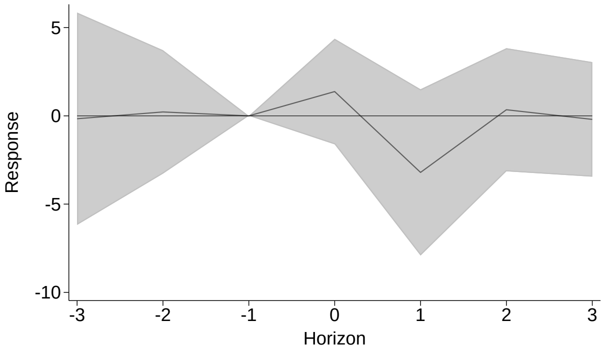
(k) TCFD



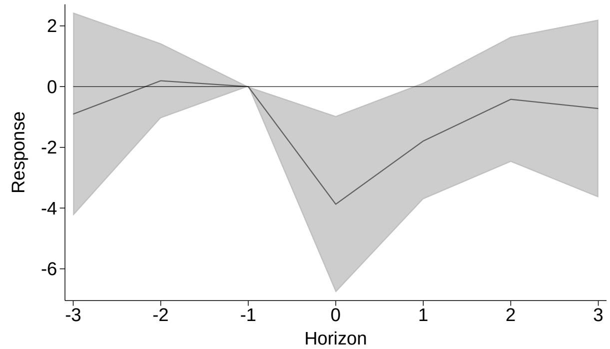
(l) PRB

Note: Dependent variable is emission exposure, only including units with observations for all horizons in the event window. See equation (3) for the exact specification. Standard errors are clustered at the bank level and are robust to heteroskedasticity and serial correlation. 95% confidence bands.

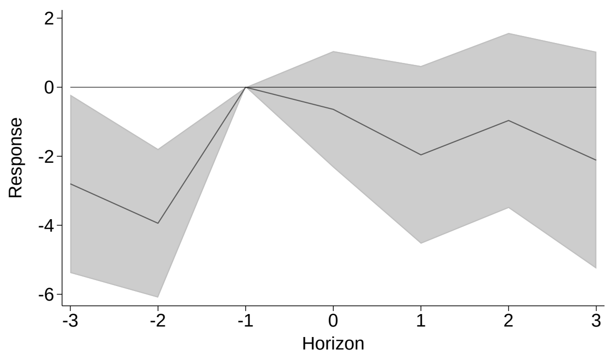
A.6 Bank Level LP-DiDs, Dirty Specialized Banks



(m) PRI



(n) TCFD



(o) PRB

Note: Excluding banks that lend a below-average share of their loans to the dirtiest industries (oil and gas, utilities, and shipping). Dependent variable is emission exposure. See equation (3) for the exact specification. Standard errors are clustered at the bank level and are robust to heteroskedasticity and serial correlation. 95% confidence bands.

B Tables

B.1 Main Results: Emissions Intensity (log emissions/output)

Log emissions intensity	(1)	(2)	(3)	(1)	(2)	(3)
	All PRI			**New PRI**		
Signatory	-0.158*	-0.003	0.004	-0.190*	-0.042	-0.038
	(0.058)	(0.073)	(0.070)	(0.082)	(0.079)	(0.084)
N	269,412	269,412	269,412	161,655	161,655	161,655
R^2	0.004	0.030	0.051	0.004	0.033	0.054
	TCFD			**PRB**		
Signatory	-0.032	-0.088	-0.084	0.115	-0.002	-0.004
	(0.063)	(0.052)	(0.054)	(0.058)	(0.060)	(0.058)
N	269,412	269,412	269,412	269,412	269,412	269,412
R^2	0.003	0.030	0.051	0.003	0.030	0.051
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	No	Yes	Yes	No	Yes	Yes
Country FE	No	No	Yes	No	No	Yes

Note: Dependent variable is the log of total emissions over output in the country-industry of the borrower. See equation (4) for the exact specification. Fixed effects as indicated. Standard errors clustered at the bank and industry level. * indicates significance at 5% level, ** at 1% level, and *** at 0.1% level.

B.2 Main Results: Alternative Commitment Measures

Emission Index	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
	ESG Score			Equator Principles			Net Zero Commitments		
Signatory	0.036	0.048	0.051	1.582**	0.126	0.002	-0.528	0.933	0.711
	(0.036)	(0.032)	(0.030)	(0.473)	(1.488)	(1.269)	(0.474)	(1.113)	(0.985)
N	211,333	211,333	211,333	269,412	269,412	269,412	269,412	269,412	269,412
R^2	0.002	0.020	0.046	0.003	0.020	0.045	0.002	0.020	0.045
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Country FE	No	No	Yes	No	No	Yes	No	No	Yes

Note: Net zero commitments are defined as the date a bank released a statement committing to achieving net zero emissions in their lending portfolio. Dependent variable is emission index. See equation (4) for the exact specification. Fixed effects as indicated. Standard errors clustered at the bank and industry level. * indicates significance at 5% level, ** at 1% level, and *** at 0.1% level.

B.3 Main Results: Sum of Commitments

Emission Index	(1)	(2)	(3)	(1)	(2)	(3)
	Signed Any Commits			Number of Commits Signed		
Signatory	-0.437	-0.308	-0.136	-0.483	-0.318	-0.307
	(0.424)	(1.139)	(0.981)	(0.514)	(0.486)	(0.447)
N	269,412	269,412	269,412	269,412	269,412	269,412
R^2	0.002	0.020	0.045	0.002	0.020	0.045
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	No	Yes	Yes	No	Yes	Yes
Country FE	No	No	Yes	No	No	Yes

Note: Dependent variable is emission index. Signatory indicator takes on values of 0-3, to indicate total number of commitments signed by a given bank in a given year. See equation (4) for the exact specification. Fixed effects as indicated. Standard errors clustered at the bank and industry level. * indicates significance at 5% level, ** at 1% level, and *** at 0.1% level.

B.4 Months to Maturity: Effect of the Sum of Commitments

Months to maturity	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
	Signed Any Commits				**Number of Commits Signed**			
Signatory	3.548*	-0.315	-0.166	1.073	1.670	0.655	0.668	1.736*
	(1.560)	(1.809)	(1.654)	(1.888)	(0.970)	(0.606)	(0.587)	(0.825)
Emissions index	0.076	0.072	0.081	0.074	0.070	0.066	0.076	0.071
	(0.067)	(0.071)	(0.066)	(0.052)	(0.058)	(0.063)	(0.059)	(0.047)
Emissions x sig.	0.036	0.032	0.031	0.023	0.010	0.008	0.007	0.005
	(0.098)	(0.044)	(0.037)	(0.017)	(0.021)	(0.017)	(0.015)	(0.009)
N	262,252	262,252	262,252	262,252	262,252	262,252	262,252	262174
R^2	0.012	0.046	0.089	0.150	0.013	0.046	0.089	0.150
Year FE	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Bank FE	No	Yes	Yes	No	No	Yes	Yes	No
Country FE	No	No	Yes	No	No	No	Yes	No
Interactions	No	No	No	Yes	No	No	No	Yes

Dependent variable is maturity of the loan at origination, in months. See equation (6) for the exact specification. Fixed effects as indicated. Interacted fixed effects include year-bank, year-country, and country-bank fixed effects. Standard errors clustered at the bank and industry level. * indicates significance at 5% level, ** at 1% level, and *** at 0.1% level.

B.5 Main Results: ESG Score Control

Emission Index	(1)	(2)	(3)	(1)	(2)	(3)
	All PRI			**New PRI**		
Signatory	-2.470***	0.932	0.959	-2.080*	0.735	0.710
	(0.618)	(1.262)	(1.141)	(1.006)	(1.449)	(1.462)
ESG Score	0.059	0.047	0.050	0.063	0.036	0.035
	(0.038)	(0.033)	(0.031)	(0.061)	(0.034)	(0.035)
N	211,333	211,333	211,333	121,138	121,138	121,138
R^2	0.004	0.020	0.046	0.005	0.023	0.049
	TCFD			**PRB**		
Signatory	-0.888	-1.294	-1.211	1.477	0.250	0.148
	(1.436)	(0.913)	(0.875)	(0.939)	(0.784)	(0.700)
ESG Score	0.040	0.046	0.049	0.035	0.047	0.050
	(0.038)	(0.033)	(0.030)	(0.036)	(0.032)	(0.030)
N	211,333	211,333	211,333	211,333	211,333	211,333
R^2	0.002	0.020	0.046	0.003	0.020	0.046
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	No	Yes	Yes	No	Yes	Yes
Country FE	No	No	Yes	No	No	Yes

Note: Dependent variable is emission index. See equation (4) for the exact specification. Fixed effects as indicated. Standard errors clustered at the bank and industry level. * indicates significance at 5% level, ** at 1% level, and *** at 0.1% level.

B.6 Main Results: Controlling for Total Lending by Country/Year

Emission Index	(1)	(2)	(3)	(1)	(2)	(3)
		All PRI			**New PRI**	
Signatory	-1.796**	0.457	0.557	-2.197*	0.098	0.193
	(0.548)	(1.046)	(0.996)	(0.867)	(1.187)	(1.204)
Total Lending	-0.001	0.003	0.004	-0.002	0.002	0.004
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)
N	269,412	269,412	269,412	161,655	161,655	161,655
R^2	0.003	0.021	0.045	0.004	0.023	0.048
		TCFD			**PRB**	
Signatory	-0.346	-1.166	-1.148	1.308	0.274	0.257
	(0.871)	(0.785)	(0.689)	(1.029)	(0.852)	(0.735)
Total Lending	-0.001	0.003	0.004	-0.001	0.003	0.004
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
N	269,412	269,412	269,412	269,412	269,412	269,412
R^2	0.002	0.022	0.045	0.002	0.021	0.045
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	No	Yes	Yes	No	Yes	Yes
Country FE	No	No	Yes	No	No	Yes

Note: Dependent variable is emission index. See equation (4) for the exact specification. Fixed effects as indicated. Standard errors clustered at the bank and industry level. * indicates significance at 5% level, ** at 1% level, and *** at 0.1% level.

B.7 Main Results: Controlling for Total Lending by Country/Year/Industry

Emission Index	(1)	(2)	(3)	(1)	(2)	(3)
		All PRI			**New PRI**	
Signatory	-1.733***	0.724	0.646	-1.437**	0.540	0.337
	(0.446)	(1.016)	(0.912)	(0.518)	(0.936)	(1.046)
Total Lending	-0.126**	-0.129**	-0.199***	-0.129**	-0.135**	-0.188***
	(0.038)	(0.044)	(0.047)	(0.036)	(0.044)	(0.049)
N	269,412	269,412	269,412	161,655	161,655	161,655
R^2	0.060	0.070	0.129	0.062	0.075	0.125
		TCFD			**PRB**	
Signatory	-0.871	-1.520	-1.309	-1.046	0.108	-0.109
	(0.980)	(0.757)	(0.730)	(1.111)	(0.862)	(0.653)
Total Lending	-0.127**	-0.129**	-0.199***	-0.127**	-0.129**	-0.199***
	(0.039)	(0.044)	(0.047)	(0.039)	(0.044)	(0.047)
N	269,412	269,412	269,412	269,412	269,412	269,412
R^2	0.059	0.070	0.130	0.059	0.070	0.129
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	No	Yes	Yes	No	Yes	Yes
Country FE	No	No	Yes	No	No	Yes

Note: Dependent variable is emission index. See equation (4) for the exact specification. Fixed effects as indicated. Standard errors clustered at the bank and industry level. * indicates significance at 5% level, ** at 1% level, and *** at 0.1% level.

B.8 Quantile Regressions

Emission Index	(1)	(2)	(3)	(4)	(5)
	25th	**50th**	**75th**	**90th**	**99th**
PRI					
Signatory	0.217	0.510	0.838	1.039	1.227
	(1.117)	(0.644)	(0.519)	(0.768)	(1.082)
N	269,412	269,412	269,412	269,412	269,412
New PRI					
Signatory	0.164	0.159	0.154	0.151	0.148
	(0.479)	(0.364)	(0.566)	(0.764)	(0.981)
N	161,655	161,655	161,655	161,655	161,655
TCFD					
Signatory	-1.301***	-1.218***	-1.125*	-1.069	-1.016
	(0.295)	(0.280)	(0.510)	(0.685)	(0.857)
N	269,412	269,412	269,412	269,412	269,412
PRB					
Signatory	0.549	0.215	-0.160	-0.389	-0.603
	(0.375)	(0.270)	(0.396)	(0.540)	(0.689)
N	269,412	269,412	269,412	269,412	269,412
Year FE	Yes	Yes	Yes	Yes	Yes
Bank FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes

Note: Dependent variable is emission index. Fixed effects as indicated.
* indicates significance at 5% level, ** at 1% level, and *** at 0.1% level.

B.9 Main Results: Lead Arrangers

Emission Index	(1)	(2)	(3)	(1)	(2)	(3)
		All PRI			**New PRI**	
Signatory	-2.696*	-0.372	-0.601	-2.026***	-0.786	-1.031
	(1.094)	(1.277)	(1.175)	(0.325)	(1.694)	(1.586)
N	44,504	44,504	44,504	27,026	27,026	27,026
R^2	0.008	0.032	0.063	0.007	0.034	0.060
		TCFD			**PRB**	
Signatory	-0.660	0.913	0.897	0.420	1.102	0.850
	(1.293)	(1.103)	(1.041)	(0.963)	(0.937)	(0.980)
N	44,504	44,504	44,504	44,504	44,504	44,504
R^2	0.007	0.032	0.063	0.007	0.032	0.063
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	No	Yes	Yes	No	Yes	Yes
Country FE	No	No	Yes	No	No	Yes

Note: Dependent variable is emission index. See equation (4) for the exact specification. Fixed effects as indicated. Standard errors clustered at the bank and industry level. * indicates significance at 5% level, ** at 1% level, and *** at 0.1% level.

B.10 Main Results: Dirty-Specialized Banks

Emission Index	(1)	(2)	(3)	(1)	(2)	(3)
		All PRI			**New PRI**	
Signatory	0.057	1.569***	0.639*	0.006	1.504***	0.649*
	(0.137)	(0.354)	(0.285)	(0.223)	(0.368)	(0.296)
N	39,801	39,801	39,801	25,023	25,023	25,023
R^2	0.003	0.093	0.349	0.002	0.119	0.366
		TCFD			**PRB**	
Signatory	-2.254***	0.007	0.140	-1.822***	0.654**	0.170
	(0.162)	(0.236)	(0.202)	(0.198)	(0.252)	(0.213)
N	39,801	39,801	39,801	39,801	39,801	39,801
R^2	0.007	0.093	0.349	0.005	0.093	0.349
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	No	Yes	Yes	No	Yes	Yes
Country FE	No	No	Yes	No	No	Yes

Note: Excluding banks that lend a below-average share of their loans to the dirtiest industries (oil and gas, utilities, and shipping). Dependent variable is emission index. See equation (4) for the exact specification. Fixed effects as indicated. Standard errors clustered at the bank and industry level. * indicates significance at 5% level, ** at 1% level, and *** at 0.1% level.

B.11 Main Results: Pre-COVID

Emission Index	(1)	(2)	(3)	(1)	(2)	(3)
		All PRI			**New PRI**	
Signatory	-1.681***	-0.145	-0.188	-3.933***	-0.122	-0.243
	(0.392)	(1.999)	(1.579)	(0.799)	(2.119)	(1.802)
N	171,651	171,651	171,651	104,580	104,580	104,580
R^2	0.002	0.018	0.044	0.003	0.021	0.048
		TCFD			**PRB**	
Signatory	-0.502	-1.821*	-1.891*	1.586	0.525	-0.475
	(0.604)	(0.797)	(0.795)	(3.266)	(3.987)	(3.675)
N	171,651	171,651	171,651	171,651	171,651	171,651
R^2	0.002	0.019	0.044	0.002	0.018	0.044
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	No	Yes	Yes	No	Yes	Yes
Country FE	No	No	Yes	No	No	Yes

Note: Dependent variable is emission index. See equation (4) for the exact specification. Fixed effects as indicated. Standard errors clustered at the bank and industry level. * indicates significance at 5% level, ** at 1% level, and *** at 0.1% level.

B.12 Emission Shares by Index Decile

Emission-index decile	Share of total emissions (%)
Decile 1 (index 1–10)	0.67
Decile 2 (index 11–20)	0.73
Decile 3 (index 21–30)	1.17
Decile 4 (index 31–40)	1.81
Decile 5 (index 41–50)	2.66
Decile 6 (index 51–60)	2.76
Decile 7 (index 61–70)	3.02
Decile 8 (index 71–80)	4.60
Decile 9 (index 81–90)	13.33
Decile 10 (index 91–100)	69.24