

Online Resource 1: Supplementary Material for “When Does Tax Monitoring Matter? Evidence from Brazil’s Large-Taxpayer Program”

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This document reports the full identifying-assumption battery, the complete robustness and sensitivity battery, the regression-discontinuity diagnostics, the matching and entropy-balancing diagnostics, additional outcome estimates, annual-frequency and sector robustness checks, additional heterogeneity dimensions, and sample-construction and estimation-diagnostic detail referenced in the main text. All tables and figures are produced by the same estimation pipeline as the main manuscript; notes under each table describe the underlying sample and specification. Appendix B (PET/PCA validation) and Appendix E (matching and entropy-balancing diagnostics) are referred to directly from the main text as “Appendix B” and “Appendix E.”

Appendix A Identifying-assumption battery for the staggered difference-in-differences design

This appendix reports the full set of diagnostics supporting the parallel-trends, no-anticipation, and stable-unit-treatment-value assumptions underlying the Callaway and Sant’Anna staggered difference-in-differences design.

Table S1. Absorbing-treatment diagnostic for staggered DiD

Test	Variable	Firms with Violation	Passed
absorbing_treatment	D_espec_abs	0	Yes
absorbing_treatment	D_difer_abs	0	Yes
absorbing_treatment	D_grcontr_abs	0	Yes

Table S2. Pre-treatment covariate balance for staggered DiD

Test	Variable	n Treated	n Comparison	Mean Treated	Mean Comparison
pre_treatment_covariate_balance	tam_proxy	178	133	22.08	20.65
pre_treatment_covariate_balance	lev_proxy	178	133	0.58	0.89
pre_treatment_covariate_balance	roa_proxy	178	133	0.06	0.06
pre_treatment_covariate_balance	imob_proxy	169	101	0.27	0.29
pre_treatment_covariate_balance	big4	178	133	0.93	0.62
pre_treatment_covariate_balance	tax_exposure_pre	178	133	0.23	-0.31

Note. Standardized differences are diagnostics for baseline imbalance, not formal tests of parallel trends.

Table S3. Pre-treatment mean comparisons for the two-stage design

Design	Variable	Treated mean	Comparison mean	Adjusted difference	Clustered SE	<i>p</i> -value	SMD
H1	ETR _{it}	0.25	0.25	-0.01	0.01	.643	-0.10
H1	TB _{it}	0.27	0.28	-0.02	0.02	.280	-0.11
H1	AbnETR _{it}	0.02	0.02	0.01	0.01	.354	0.04
H1	AbnTB _{it}	0.01	0.01	0.01	0.00	.020	0.03
H1	Size _{it}	21.14	22.82	-1.58	0.17	< .001	-1.22
H1	Lev _{it}	0.60	0.63	-0.02	0.04	.577	0.04
H1	ROA _{it}	0.05	0.05	-0.00	0.02	.854	-0.07
H1	Tang _{it}	0.25	0.26	-0.02	0.04	.572	0.22
H1	Big4 _{it}	0.79	0.88	-0.11	0.05	.028	-0.35
H1	PET _i	-0.45	0.65	-1.08	0.25	< .001	-0.60
H1	FP _i	0.24	0.25	-0.01	0.02	.550	-0.15
H2	ETR _{it}	0.21	0.21	-0.01	0.04	.830	0.31
H2	TB _{it}	0.17	0.26	-0.10	0.04	.012	-0.40
H2	AbnETR _{it}	0.02	0.02	-0.01	0.01	.575	-0.15
H2	AbnTB _{it}	0.00	0.01	-0.01	0.00	.004	-0.46
H2	Size _{it}	21.52	20.46	1.12	0.28	< .001	1.08
H2	Lev _{it}	0.53	0.73	-0.20	0.07	.004	-0.54
H2	ROA _{it}	0.05	-0.00	0.06	0.03	.050	0.50
H2	Tang _{it}	0.33	0.28	0.03	0.08	.683	0.55
H2	Big4 _{it}	1.00	0.49	0.51	0.05	< .001	1.39
H2	PET _i	-0.43	-0.52	0.10	0.04	.009	0.58
H2	FP _i	0.20	0.21	-0.01	0.04	.787	0.35

Note. The table uses only common calendar quarters with observations for both groups. For H1, treated firms eventually enter Differentiated monitoring and comparison firms do not enter during the observed panel. For H2, the risk set is restricted to firms already in Differentiated monitoring; treated firms subsequently transition to Special and comparison firms are not yet Special or never become Special. Adjusted differences come from firm-quarter regressions with quarter fixed effects and CR1 standard errors clustered by firm. SMD is the standardized difference in firm-level pre-treatment means. These are balance diagnostics, not tests of parallel trends.

Pre-treatment diagnostics. For H1 (ETR_{it}) does not reject the joint zero-lead null ($p = .492$; 8 pre-treatment coefficients; maximum absolute lead = 0.08). For H2 (ETR_{it}) does not reject the joint zero-lead null ($p = .520$; 8 pre-treatment coefficients; maximum absolute lead = 0.09). The pre-treatment balance diagnostics in Table S3 report period-adjusted mean differences with firm-clustered standard errors and standardized differences; these diagnose observed compositional imbalance but do not test parallel outcome trends. We interpret these tests cautiously: failure to reject pre-treatment coefficients is not proof of parallel trends and can reflect limited power. Accordingly, identification is assessed jointly using the event-study pattern and simultaneous confidence bands (Figure 2 in the main text), event-time support, institutional timing, and the HonestDiD sensitivity analysis reported below.

Table S4. Event-study pre-treatment coefficients

Test	Model	Event Time	Att	Se	Lower	Upper	Zero Inside Band
event_study_pretrend	H1_special_ETR	-8	-0.03	0.04	-0.13	0.08	Yes
event_study_pretrend	H1_special_ETR	-7	-0.01	0.03	-0.10	0.07	Yes
event_study_pretrend	H1_special_ETR	-6	-0.02	0.03	-0.09	0.06	Yes
event_study_pretrend	H1_special_ETR	-5	0.05	0.04	-0.06	0.15	Yes
event_study_pretrend	H1_special_ETR	-4	0.12	0.07	-0.09	0.32	Yes
event_study_pretrend	H1_special_ETR	-3	-0.02	0.06	-0.19	0.15	Yes
event_study_pretrend	H1_special_ETR	-2	-0.02	0.05	-0.18	0.14	Yes
event_study_pretrend	H1_special_ETR	-1	-0.05	0.07	-0.26	0.17	Yes
event_study_pretrend	H1_special_TB	-8	0.07	0.04	-0.05	0.19	Yes
event_study_pretrend	H1_special_TB	-7	0.00	0.03	-0.07	0.08	Yes
event_study_pretrend	H1_special_TB	-6	-0.01	0.02	-0.06	0.03	Yes
event_study_pretrend	H1_special_TB	-5	0.01	0.03	-0.07	0.09	Yes
event_study_pretrend	H1_special_TB	-4	0.13	0.05	0.00	0.26	Yes
event_study_pretrend	H1_special_TB	-3	-0.03	0.05	-0.16	0.11	Yes
event_study_pretrend	H1_special_TB	-2	0.03	0.03	-0.05	0.11	Yes
event_study_pretrend	H1_special_TB	-1	-0.13	0.05	-0.27	0.01	Yes
event_study_pretrend	H1_special_AbnETR_Med	-8	0.03	0.02	-0.03	0.09	Yes
event_study_pretrend	H1_special_AbnETR_Med	-7	0.04	0.04	-0.05	0.13	Yes
event_study_pretrend	H1_special_AbnETR_Med	-6	-0.02	0.02	-0.06	0.02	Yes
event_study_pretrend	H1_special_AbnETR_Med	-5	0.00	0.04	-0.09	0.10	Yes
event_study_pretrend	H1_special_AbnETR_Med	-4	0.00	0.02	-0.05	0.05	Yes
event_study_pretrend	H1_special_AbnETR_Med	-3	0.04	0.04	-0.06	0.15	Yes
event_study_pretrend	H1_special_AbnETR_Med	-2	-0.04	0.04	-0.14	0.06	Yes
event_study_pretrend	H1_special_AbnETR_Med	-1	-0.02	0.01	-0.05	0.00	Yes
event_study_pretrend	H1_special_AbnTB_Med	-8	0.01	0.02	-0.03	0.06	Yes
event_study_pretrend	H1_special_AbnTB_Med	-7	0.00	0.01	-0.03	0.02	Yes
event_study_pretrend	H1_special_AbnTB_Med	-6	0.00	0.00	-0.01	0.01	Yes
event_study_pretrend	H1_special_AbnTB_Med	-5	0.00	0.01	-0.03	0.02	Yes

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Table S4 (continued)

Test	Model	Event Time	Att	Se	Lower	Upper	Zero Inside Band
event_study_pretrend	H1_special_AbnTB_Med	-4	0.00	0.00	0.00	0.01	Yes
event_study_pretrend	H1_special_AbnTB_Med	-3	0.00	0.00	-0.01	0.00	Yes
event_study_pretrend	H1_special_AbnTB_Med	-2	0.00	0.00	0.00	0.00	Yes
event_study_pretrend	H1_special_AbnTB_Med	-1	0.00	0.00	-0.01	0.01	Yes
event_study_pretrend	H1_special_ETR_annual	-7	0.12	0.08	-0.09	0.33	Yes
event_study_pretrend	H1_special_ETR_annual	-6	-0.10	0.03	-0.18	-0.02	No
event_study_pretrend	H1_special_ETR_annual	-5	0.01	0.09	-0.21	0.23	Yes
event_study_pretrend	H1_special_ETR_annual	-4	-0.03	0.10	-0.30	0.23	Yes
event_study_pretrend	H1_special_ETR_annual	-3	0.06	0.05	-0.06	0.18	Yes
event_study_pretrend	H1_special_ETR_annual	-2	0.00	0.04	-0.11	0.10	Yes
event_study_pretrend	H1_special_ETR_annual	-1	0.04	0.03	-0.03	0.11	Yes
event_study_pretrend	H1_differentiated_ETR	-8	0.00	0.02	-0.06	0.05	Yes
event_study_pretrend	H1_differentiated_ETR	-7	-0.01	0.02	-0.06	0.03	Yes
event_study_pretrend	H1_differentiated_ETR	-6	0.01	0.02	-0.03	0.05	Yes
event_study_pretrend	H1_differentiated_ETR	-5	-0.03	0.02	-0.08	0.03	Yes
event_study_pretrend	H1_differentiated_ETR	-4	0.02	0.05	-0.13	0.16	Yes
event_study_pretrend	H1_differentiated_ETR	-3	0.05	0.05	-0.08	0.19	Yes
event_study_pretrend	H1_differentiated_ETR	-2	-0.08	0.05	-0.22	0.06	Yes
event_study_pretrend	H1_differentiated_ETR	-1	-0.02	0.05	-0.16	0.13	Yes
event_study_pretrend	H1_combined_ETR	-8	0.13	0.05	-0.02	0.28	Yes
event_study_pretrend	H1_combined_ETR	-7	-0.03	0.02	-0.10	0.03	Yes
event_study_pretrend	H1_combined_ETR	-6	0.00	0.03	-0.07	0.07	Yes
event_study_pretrend	H1_combined_ETR	-5	0.04	0.04	-0.06	0.14	Yes
event_study_pretrend	H1_combined_ETR	-4	0.09	0.08	-0.13	0.31	Yes
event_study_pretrend	H1_combined_ETR	-3	0.06	0.07	-0.13	0.25	Yes
event_study_pretrend	H1_combined_ETR	-2	-0.06	0.06	-0.23	0.10	Yes
event_study_pretrend	H1_combined_ETR	-1	-0.15	0.06	-0.32	0.02	Yes
event_study_pretrend	H1_special_ETR_never	-8	-0.01	0.05	-0.14	0.13	Yes
event_study_pretrend	H1_special_ETR_never	-7	-0.02	0.04	-0.13	0.09	Yes

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Table S4 (continued)

CT	Test	Model	Event Time	Att	Se	Lower	Upper	Zero Inside Band
	event_study_pretrend	H1_special_ETR_never	-6	-0.02	0.04	-0.12	0.08	Yes
	event_study_pretrend	H1_special_ETR_never	-5	0.05	0.05	-0.07	0.18	Yes
	event_study_pretrend	H1_special_ETR_never	-4	0.13	0.11	-0.16	0.43	Yes
	event_study_pretrend	H1_special_ETR_never	-3	-0.05	0.08	-0.27	0.17	Yes
	event_study_pretrend	H1_special_ETR_never	-2	-0.04	0.09	-0.29	0.21	Yes
	event_study_pretrend	H1_special_ETR_never	-1	0.00	0.10	-0.26	0.27	Yes
	event_study_pretrend	H1_special_ETR_entropy_never_main	-8	-0.01	0.05	-0.12	0.11	Yes
	event_study_pretrend	H1_special_ETR_entropy_never_main	-7	-0.03	0.03	-0.11	0.05	Yes
	event_study_pretrend	H1_special_ETR_entropy_never_main	-6	0.01	0.03	-0.07	0.09	Yes
	event_study_pretrend	H1_special_ETR_entropy_never_main	-5	0.00	0.05	-0.11	0.11	Yes
	event_study_pretrend	H1_special_ETR_entropy_never_main	-4	0.14	0.09	-0.08	0.36	Yes
	event_study_pretrend	H1_special_ETR_entropy_never_main	-3	-0.10	0.06	-0.24	0.03	Yes
	event_study_pretrend	H1_special_ETR_entropy_never_main	-2	0.05	0.08	-0.13	0.24	Yes
	event_study_pretrend	H1_special_ETR_entropy_never_main	-1	-0.13	0.10	-0.37	0.12	Yes
	event_study_pretrend	H1_special_ETR_psm_never_robustness	-8	-0.01	0.05	-0.19	0.17	Yes
	event_study_pretrend	H1_special_ETR_psm_never_robustness	-7	-0.03	0.03	-0.13	0.08	Yes
	event_study_pretrend	H1_special_ETR_psm_never_robustness	-6	-0.02	0.03	-0.13	0.08	Yes
	event_study_pretrend	H1_special_ETR_psm_never_robustness	-5	0.03	0.04	-0.11	0.18	Yes
	event_study_pretrend	H1_special_ETR_psm_never_robustness	-4	0.21	0.10	-0.13	0.55	Yes
	event_study_pretrend	H1_special_ETR_psm_never_robustness	-3	-0.05	0.08	-0.32	0.22	Yes
	event_study_pretrend	H1_special_ETR_psm_never_robustness	-2	-0.04	0.10	-0.35	0.28	Yes
	event_study_pretrend	H1_special_ETR_psm_never_robustness	-1	-0.07	0.12	-0.47	0.33	Yes
	event_study_pretrend	H1_special_ETR_2018	-8	-0.05	0.03	-0.14	0.03	Yes

Note. Pre-treatment coefficients are diagnostics for parallel-trends plausibility, not proof. Table truncated to first 80 rows.

Table S5. Joint diagnostics for pre-treatment event-study coefficients

Design	Outcome	Pre-periods	Wald	df	<i>p</i> -value	Max. $ ATT_{pre} $	All bands include zero
H1	ETR_{it}	8	7.42	8	.492	0.08	Yes
H1	TB_{it}	8	20.92	8	.007	0.07	No
H1	$AbnETR_{it}$	8	3.99	8	.858	0.05	Yes
H1	$AbnTB_{it}$	8	10.45	8	.235	0.08	Yes
H2	ETR_{it}	8	7.15	8	.520	0.09	Yes
H2	TB_{it}	8	5.59	8	.693	0.03	Yes
H2	$AbnETR_{it}$	8	25.29	8	.001	0.17	No
H2	$AbnTB_{it}$	8	9.56	8	.297	0.03	Yes

Note. The joint Wald test evaluates the conventional null that all reported pre-treatment event-study coefficients equal zero. The covariance matrix uses the dynamic aggregation influence function when available and otherwise a diagonal approximation from reported standard errors. Max. $|ATT_{pre}|$ reports the largest absolute pre-treatment coefficient. Failure to reject the joint null does not establish parallel trends because the test may have low power; interpretation should also consider simultaneous bands, event-time support, institutional timing, and the HonestDiD sensitivity analysis.

Table S6. Event-time support for staggered DiD

Event Time	Treated Firms Observed	Rows
-8	18	18
-7	16	16
-6	18	18
-5	178	178
-4	30	30
-3	29	29
-2	28	28
-1	169	169
0	162	162
1	159	159
2	158	158
3	158	158
4	146	146
5	151	151
6	144	144
7	145	145
8	131	131
9	129	129
10	128	128
11	128	128
12	124	124

Table S7. Staggered DiD support by treatment cohort

g	Firms	Firms with Pre	Firms with Post	Estimable Treated Firms	Min Observed Period	Max Observed
0.00	133	0	0	0	9	48
17.00	143	143	143	143	9	48
21.00	10	10	10	10	12	48
25.00	4	4	4	4	13	48
29.00	4	4	4	4	12	48
33.00	1	1	1	1	28	36
37.00	2	2	2	2	28	48
41.00	11	11	11	11	12	48
45.00	3	3	3	3	20	48

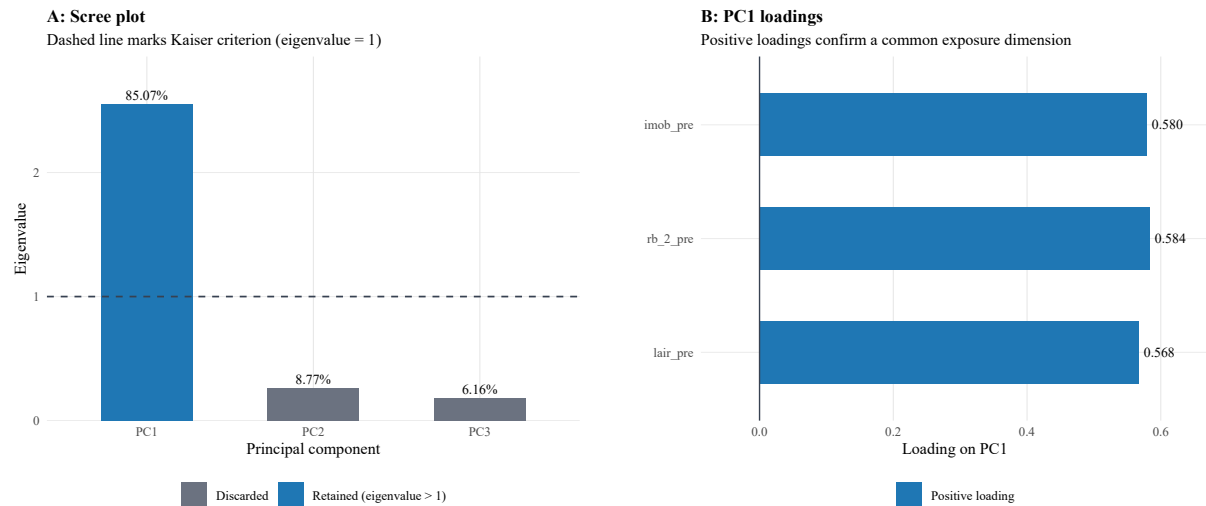
Table S8. Staggered DiD placebo timing estimate

Model	Att	Se	Lower	Upper	Control Group	G
DiD placebo - special monitoring shifted four quarters earlier	0.02	0.02	-0.03	0.06	notyettreated	g_espec.

Appendix B PET/PCA validation

This appendix reports the principal-component validation for the pre-treatment tax-exposure (PET) index used to define the tax-exposure heterogeneity subgroups in the main text.

Figure S1. PCA validation for the PET index



Appendix C Robustness and sensitivity battery

This appendix reports the complete set of robustness and sensitivity checks for the main staggered DiD estimates: leave-one-cohort-out stability, the Goodman–Bacon decomposition, the Rambachan–Roth (HonestDiD) sensitivity analysis, the Oster coefficient-stability diagnostic, multiple-testing correction across hypotheses, and an audit of the top-tier robustness implementation.

Table S9. Leave-one-cohort-out stability of the main monitoring effect

Omitted Cohort	Omitted Treated Firms	Yvar	Estimate	Std Error	Conf Interval	Control Group
17	143	ETR	-0.03	(0.0255)	[-0.0850, 0.0151]	notyettreated
21	10	ETR	-0.04**	(0.0172)	[-0.0778, -0.0102]	notyettreated
25	4	ETR	-0.04**	(0.0203)	[-0.0843, -0.0047]	notyettreated
29	4	ETR	-0.05**	(0.0182)	[-0.0813, -0.0100]	notyettreated
33	1	ETR	-0.05**	(0.0214)	[-0.0871, -0.0031]	notyettreated
37	2	ETR	-0.05**	(0.0184)	[-0.0816, -0.0093]	notyettreated
41	11	ETR	-0.05**	(0.0218)	[-0.0954, -0.0099]	notyettreated
45	3	ETR	-0.05**	(0.0228)	[-0.0903, -0.0011]	notyettreated

Note. Notes: Each row re-estimates the main H1 ETR specification after removing one treated cohort. Stable signs and magnitudes indicate that the aggregate ATT is not driven by a single adoption cohort.

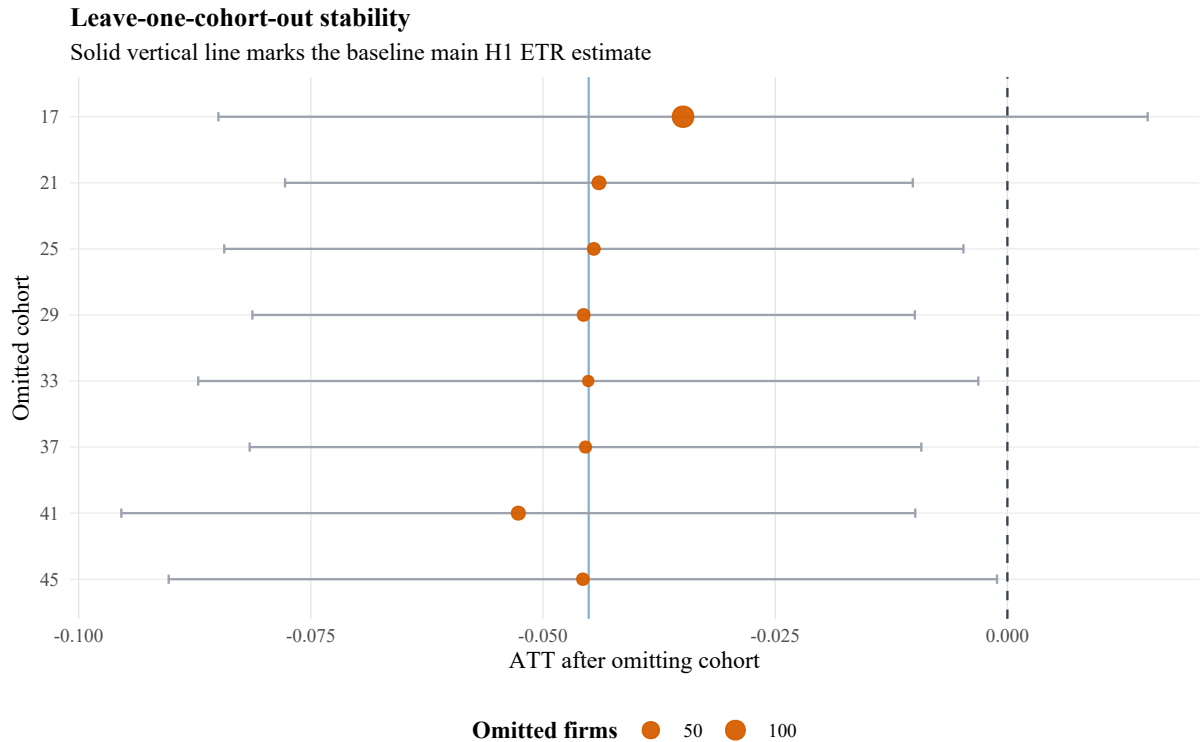


Figure S2. Leave-one-cohort-out stability of the main staggered DiD estimate

Table S10. Goodman-Bacon decomposition diagnostic

Check	Status	Reason
Bacon decomposition	not available	Unbalanced Panel

Note. Notes: This is a TWFE diagnostic benchmark showing the comparison weights that motivate modern staggered DiD. It is not a validation test for the Callaway-Sant’Anna estimator.

Table S11. Rambachan-Roth sensitivity analysis

Check	Status	Reason
Rambachan-Roth HonestDiD	not available	argumento não utilizado (Mvec = seq(0, 1, by = 0.1))

Note. Notes: HonestDiD sensitivity is reported when the optional package is installed and event-study support is sufficient. The current implementation uses a diagonal covariance approximation if a full covariance matrix is unavailable.

Table S12. Oster delta omitted-variable sensitivity

Check	Status	Reason
Oster delta	not available	Degenerate coefficient or R-squared movement.

Note. Notes: Oster delta is computed on a TWFE proxy specification as an omitted-variable sensitivity benchmark for the main ETR result.

Table S13. Multiple-testing correction across hypotheses

Hypothesis	Family	Att	Se	z Value	p Unadjusted	Rank	n Tests	p Holm Stepdown	Sig Holm 10	Sig Holm 05	Correction
H5 Low tax exposure	heterogeneity	-0.07	0.02	-2.80	0.01	1.00	9	0.05	Yes	Yes	Holm step-down fallback; Romano-Wolf joint bootstrap recommended for final submission
H2 High fiscal pressure	heterogeneity	-0.09	0.03	-2.53	0.01	2.00	9	0.09	Yes	No	Holm step-down fallback; Romano-Wolf joint bootstrap recommended for final submission
H3 Pre-IFRS15	heterogeneity	-0.05	0.02	-2.10	0.04	3.00	9	0.25	No	No	Holm step-down fallback; Romano-Wolf joint bootstrap recommended for final submission
H1 Special monitoring — ETR	main	-0.05	0.02	-2.06	0.04	4.00	9	0.25	No	No	Holm step-down fallback; Romano-Wolf joint bootstrap recommended for final submission
H4 Low compliance/rating	heterogeneity	-0.10	0.06	-1.61	0.11	5.00	9	0.54	No	No	Holm step-down fallback; Romano-Wolf joint bootstrap recommended for final submission
H3 Post-IFRS15	heterogeneity	-0.05	0.05	-0.96	0.34	6.00	9	1.00	No	No	Holm step-down fallback; Romano-Wolf joint bootstrap recommended for final submission
H4 High compliance/rating	heterogeneity	-0.03	0.03	-0.85	0.40	7.00	9	1.00	No	No	Holm step-down fallback; Romano-Wolf joint bootstrap recommended for final submission
H5 High tax exposure	heterogeneity	0.06	0.11	0.56	0.58	8.00	9	1.00	No	No	Holm step-down fallback; Romano-Wolf joint bootstrap recommended for final submission
H2 Low fiscal pressure	heterogeneity	0.01	0.02	0.37	0.71	9.00	9	1.00	No	No	Holm step-down fallback; Romano-Wolf joint bootstrap recommended for final submission

Note. Notes: Holm step-down adjusted p-values are reported as a conservative fallback. A joint Romano-Wolf bootstrap remains

Table S14. Robustness and sensitivity staggered DiD estimates

Regime	Specification	Outcome	Estimate	Std. error	95	
Special	Covariate adjusted	ETR	-0.0736	(0.0605)	[-0.1922, 0.0451]	nevertreated
Special	Baseline	ETR	-0.0186	(0.0509)	[-0.1183, 0.0812]	notyettreated
Special	Annual cohorts	ETR	-0.0074	(0.0629)	[-0.1307, 0.1159]	nevertreated
Special	Through 2018	ETR	-0.0279	(0.0719)	[-0.1688, 0.1129]	nevertreated
Other	Placebo timing	ETR	0.0095	(0.0376)	[-0.0641, 0.0832]	nevertreated
Special	Entropy weighted	ETR	-0.0204	(0.0527)	[-0.1236, 0.0828]	nevertreated
Special	PSM weighted	ETR	-0.0306	(0.0481)	[-0.1249, 0.0637]	nevertreated

Notes: The main paper tables and figures focus on the three institutional regimes against never-treated firms. This table keeps auxiliary sensitivity checks, including not-yet-treated controls, annual cohorts, covariate adjustment, matching/entropy robustness, and placebo timing.

Table S15. Mechanism screen and pre-treatment heterogeneity diagnostics

Model	Att	Se	Lower	Upper	Control Group	Gvar	Yvar
Mechanism screen - fiscal_pressure_pre	-0.02	0.01	-0.04	0.00	notyettreated	g_espec	fiscal_pressure_pre
Mechanism screen - tax_exposure_pre	-0.02	0.10	-0.22	0.17	notyettreated	g_espec	tax_exposure_pre
Mechanism screen - big4	-0.11	0.06	-0.22	0.00	notyettreated	g_espec	big4
Mechanism screen - tam_proxy	-0.02	0.16	-0.33	0.29	notyettreated	g_espec	tam_proxy
Mechanism screen - lev_proxy	0.00	0.06	-0.10	0.11	notyettreated	g_espec	lev_proxy
Mechanism screen - roa_proxy	-0.04	0.01	-0.07	-0.01	notyettreated	g_espec	roa_proxy
Mechanism screen - imob_proxy	0.05	0.03	0.00	0.11	notyettreated	g_espec	imob_proxy

Note. These estimates are mechanism screens, not mediation decompositions.

Table S16. Top-tier robustness implementation audit

Robustness Check	Output Csv	Status
Bacon decomposition	output/tab_bacon_decomposition.csv	not available
Rambachan-Roth sensitivity	output/tab_honestdid_sensitivity.csv	not available
Oster delta	output/tab_oster_delta.csv	not available
Multiple-testing correction	output/tab_multiple_testing_correction.csv	implemented
Sector-specific utilities/financial analysis	output/tab_sector_specific_top_tier.csv	implemented

Note. Notes: This audit documents whether each required robustness output was implemented or unavailable because of package/support constraints.

Appendix D Regression-discontinuity diagnostics around the Special-monitoring threshold

This appendix reports the regression-discontinuity diagnostics for the revenue threshold governing entry into Special monitoring: density and manipulation tests, covariate balance around the cutoff, bandwidth sensitivity, and placebo-cutoff estimates.

Table S17. RDD density and manipulation test

Test	Statistic	p Value
density_manipulation		

Table S18. RDD covariate balance around the revenue cutoff

Model	Yvar	Running Var	Cutoff m	h m	Tau	Se	Pv
RDD balance - tam_proxy	tam_proxy	running_special_m	0.00	861.16	0.03	0.21	0.90
RDD balance - lev_proxy	lev_proxy	running_special_m	0.00	709.42	0.05	0.13	0.72
RDD balance - roa_proxy	roa_proxy	running_special_m	0.00	759.34	-0.04	0.05	0.43
RDD balance - imob_proxy	imob_proxy	running_special_m	0.00	786.68	0.01	0.05	0.78
RDD balance - big4	big4	running_special_m	0.00	780.46	-0.10	0.12	0.41

Table S19. Regression discontinuity estimates for effective tax rate outcomes

Model	Yvar	Estimate	Std Error	Bandwidth	Pv
RDD_special_ETR	ETR	-0.01	(0.0288)	874.46	0.65
RDD_special_TB	TB	-0.03	(0.0453)	569.71	0.50
RDD_special_AbnETR_Med	AbnETR_Med	0.01	(0.0163)	905.16	0.54
RDD_special_AbnTB_Med	AbnTB_Med	-0.01	(0.0092)	670.92	0.46
RDD_special_ETR_covariates	ETR	-0.04	(0.0282)	676.44	0.16

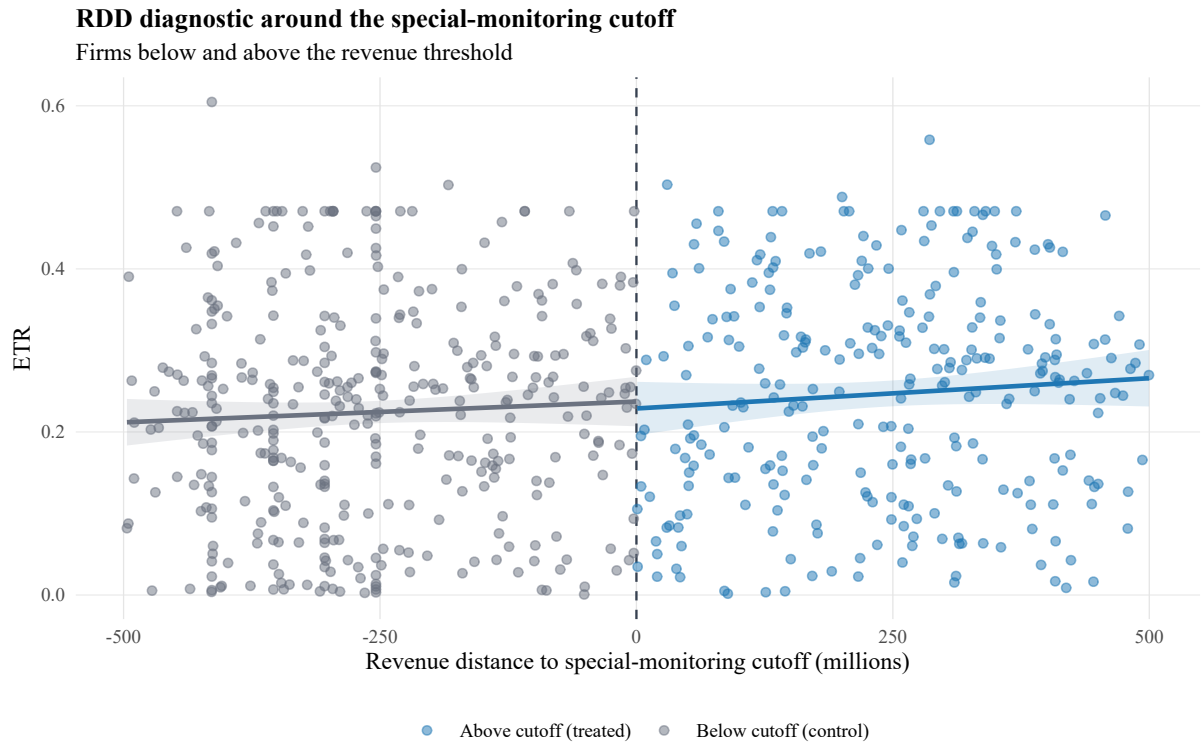
Note. Notes: RDD estimates are local to firms near the special-monitoring revenue threshold. Standard errors are in parentheses. *, **, and *** denote significance at the 10

Table S20. RDD placebo cutoff estimates

Model	Yvar	Running Var	Cutoff m	h m	Tau	Se	Pv
RDD placebo - minus_250m	ETR	running_special_m	-250.00	763.22	-0.01	0.03	0.85
RDD placebo - plus_250m	ETR	running_special_m	250.00	835.93	0.01	0.03	0.67

Table S21. RDD bandwidth sensitivity

Yvar	Bandwidth m	n	Estimate	Se
ETR	100.00	115	-0.12	0.05
ETR	250.00	288	-0.03	0.03
ETR	500.00	650	-0.01	0.02
TB	100.00	115	-0.02	0.06
TB	250.00	288	-0.02	0.04
TB	500.00	650	0.00	0.03
AbnETR_Med	100.00	111	0.00	0.03
AbnETR_Med	250.00	279	0.01	0.02
AbnETR_Med	500.00	610	0.01	0.02
AbnTB_Med	100.00	98	-0.01	0.02
AbnTB_Med	250.00	256	-0.01	0.01
AbnTB_Med	500.00	581	-0.01	0.01

**Figure S3.** RDD diagnostic for ETR around the special-monitoring revenue cutoff

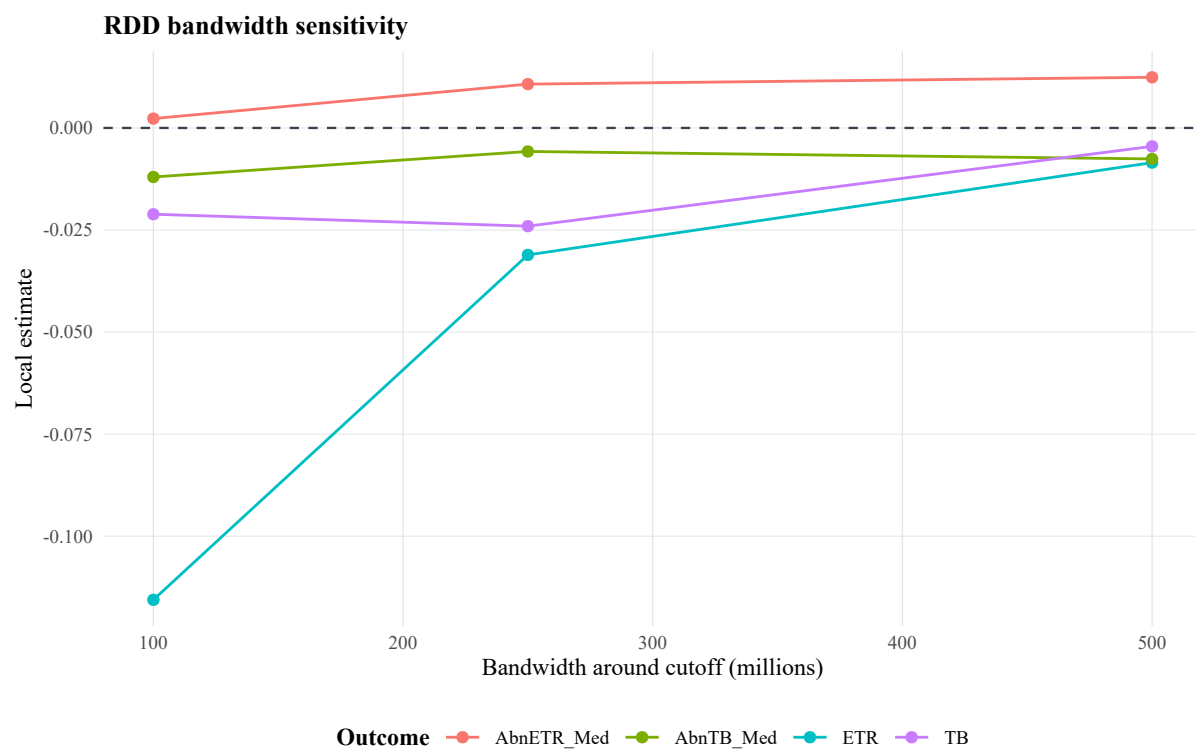


Figure S4. RDD bandwidth sensitivity across corporate taxation outcomes

Appendix E Matching and entropy-balancing diagnostics

This appendix reports the data-driven selection of the preferred matching method and the resulting covariate-balance diagnostics before and after propensity-score matching and entropy balancing.

Table S22. Data-driven selection of the preferred matching method

Method	Role	Mean Abs Smd
ENTROPY	Main results	0.00
PSM	Robustness	0.59

Note. Notes: The preferred method is selected by lowest mean absolute standardized mean difference (SMD) across all matching covariates (tam_proxy, lev_proxy, roa_proxy, imob_proxy, big4, tax_exposure_pre). The preferred method is used in main results; the other appears in robustness analyses.

Table S23. Covariate balance after propensity-score matching and entropy balancing

Variable	Smd Unweighted	Smd Psm	Smd Entropy
tam_proxy	1.06	1.46	0.00
lev_proxy	-0.24	-0.26	0.00
roa_proxy	0.03	0.06	0.00
imob_proxy	-0.08	-0.21	0.00
big4	0.84	1.09	0.00
tax_exposure_pre	0.37	0.47	0.00

Note. Notes: Entries are standardized mean differences in pre-treatment covariates. Matching covariates include tax_exposure_pre (PET index) in addition to the standard accounting controls. Smaller absolute values indicate better balance. These diagnostics improve comparability on observables but do not replace DiD pre-trend diagnostics.

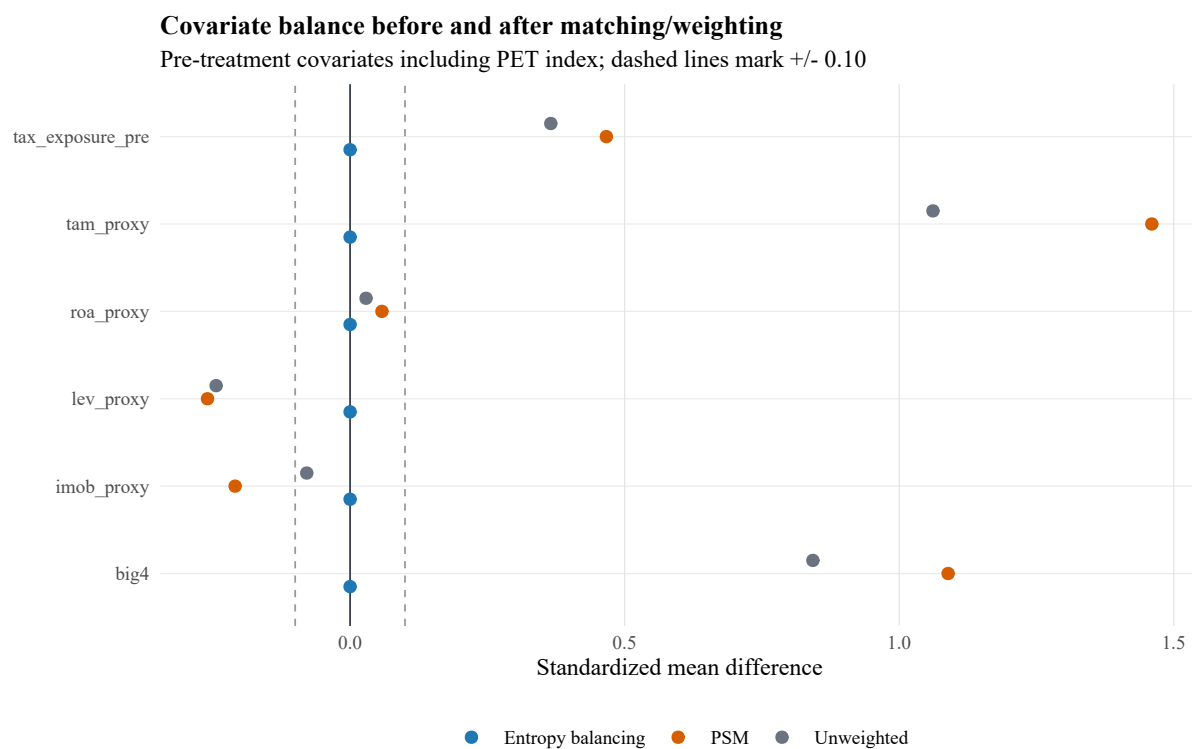


Figure S5. Covariate balance before and after matching and entropy balancing

Appendix F Additional outcome estimates

The main text reports the effective tax rate (ETR) as the primary outcome. This appendix reports the corresponding estimates for the remaining three outcomes – tax burden (TB), benchmark-adjusted ETR (AbnETR), and benchmark-adjusted TB (AbnTB) – for the main staggered DiD estimates, the dynamic event-study specification, the heterogeneity analysis, and the regression-discontinuity design.

Table S24. Additional staggered DiD estimates by monitoring regime and tax-burden outcome

Regime	Specification	Outcome	Estimate	Std. error	95	
Differentiated	Never-treated controls	ETR	0.0139	(0.0243)	[-0.0337, 0.0615]	nevertreated
Differentiated	Never-treated controls	TB	0.0232	(0.0201)	[-0.0161, 0.0626]	nevertreated
Differentiated	Never-treated controls	AbnETR	-0.0571	(0.0384)	[-0.1324, 0.0181]	nevertreated
Differentiated	Never-treated controls	AbnTB	0.0046	(0.0097)	[-0.0144, 0.0237]	nevertreated
Special	Never-treated controls	ETR	-0.0189	(0.0491)	[-0.1152, 0.0773]	nevertreated
Special	Never-treated controls	TB	0.0457	(0.0353)	[-0.0236, 0.1149]	nevertreated
Special	Never-treated controls	AbnETR	0.0209	(0.0612)	[-0.0992, 0.1409]	nevertreated
Special	Never-treated controls	AbnTB	0.0146	(0.0130)	[-0.0109, 0.0402]	nevertreated
Differentiated + special	Never-treated controls	ETR	-0.0393	(0.0628)	[-0.1623, 0.0838]	nevertreated
Differentiated + special	Never-treated controls	TB	0.0592	(0.0375)	[-0.0143, 0.1327]	nevertreated
Differentiated + special	Never-treated controls	AbnETR	-0.0411	(0.0265)	[-0.0930, 0.0109]	nevertreated
Differentiated + special	Never-treated controls	AbnTB	0.0257***	(0.0062)	[0.0136, 0.0378]	nevertreated

Notes: Appendix table reporting TB, AbnETR, and AbnTB in addition to ETR.

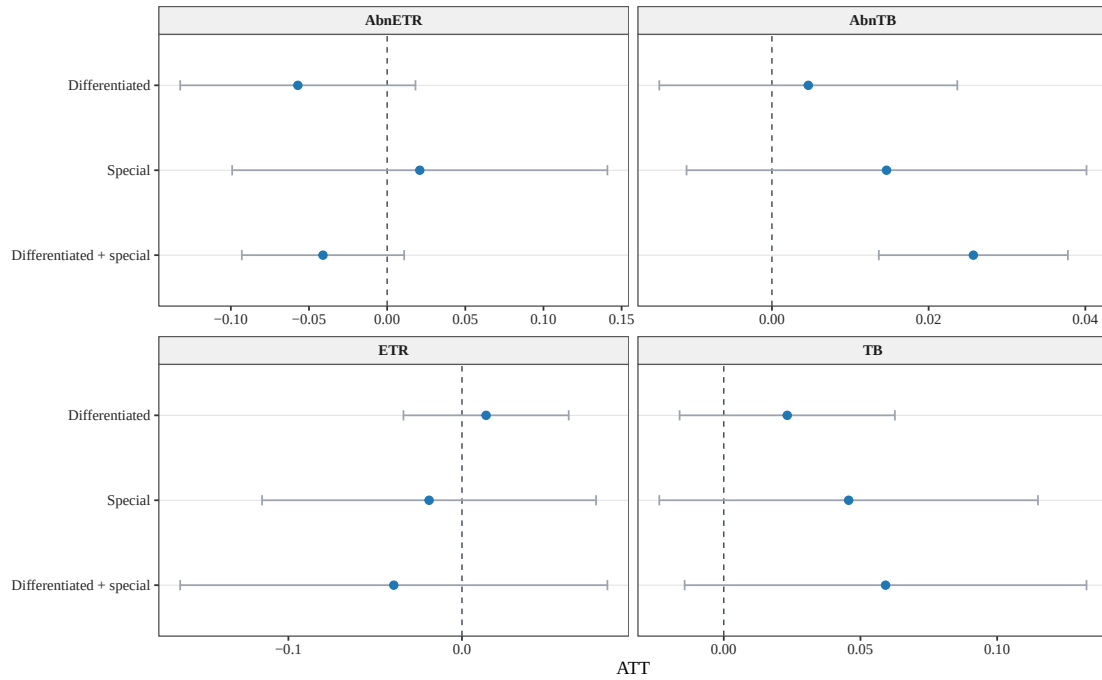


Figure S6. Additional staggered DiD estimates by monitoring regime and outcome

Table S25. Dynamic staggered DiD estimates within the preferred event-time window

Model	Event Time	Att	Se	Crit	Lower	Upper
H1 Special - ETR	-8	-0.03	0.04	2.89	-0.13	0.08

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Table S25 (continued)

Model	Event Time	Att	Se	Crit	Lower	Upper
H1 Special - ETR	-7	-0.01	0.03	2.89	-0.10	0.07
H1 Special - ETR	-6	-0.02	0.03	2.89	-0.09	0.06
H1 Special - ETR	-5	0.05	0.04	2.89	-0.06	0.15
H1 Special - ETR	-4	0.12	0.07	2.89	-0.09	0.32
H1 Special - ETR	-3	-0.02	0.06	2.89	-0.19	0.15
H1 Special - ETR	-2	-0.02	0.05	2.89	-0.18	0.14
H1 Special - ETR	-1	-0.05	0.07	2.89	-0.26	0.17
H1 Special - ETR	0	-0.01	0.02	2.89	-0.06	0.04
H1 Special - ETR	1	-0.01	0.02	2.89	-0.07	0.05
H1 Special - ETR	2	0.03	0.02	2.89	-0.04	0.09
H1 Special - ETR	3	-0.03	0.02	2.89	-0.10	0.03
H1 Special - ETR	4	-0.04	0.03	2.89	-0.11	0.04
H1 Special - ETR	5	-0.05	0.03	2.89	-0.13	0.03
H1 Special - ETR	6	-0.04	0.03	2.89	-0.13	0.05
H1 Special - ETR	7	-0.04	0.03	2.89	-0.12	0.04
H1 Special - ETR	8	-0.01	0.03	2.89	-0.10	0.07
H1 Special - ETR	9	-0.03	0.03	2.89	-0.12	0.06
H1 Special - ETR	10	-0.04	0.03	2.89	-0.14	0.05
H1 Special - ETR	11	-0.06	0.03	2.89	-0.15	0.02
H1 Special - ETR	12	-0.04	0.03	2.89	-0.12	0.05
H1 Special - TB	-8	0.07	0.04	2.82	-0.05	0.19
H1 Special - TB	-7	0.00	0.03	2.82	-0.07	0.08
H1 Special - TB	-6	-0.01	0.02	2.82	-0.06	0.03
H1 Special - TB	-5	0.01	0.03	2.82	-0.07	0.09
H1 Special - TB	-4	0.13	0.05	2.82	0.00	0.26
H1 Special - TB	-3	-0.03	0.05	2.82	-0.16	0.11
H1 Special - TB	-2	0.03	0.03	2.82	-0.05	0.11
H1 Special - TB	-1	-0.13	0.05	2.82	-0.27	0.01
H1 Special - TB	0	0.01	0.01	2.82	-0.03	0.04
H1 Special - TB	1	0.00	0.02	2.82	-0.04	0.04
H1 Special - TB	2	0.01	0.02	2.82	-0.03	0.06
H1 Special - TB	3	0.02	0.02	2.82	-0.03	0.08
H1 Special - TB	4	-0.01	0.02	2.82	-0.07	0.06
H1 Special - TB	5	-0.01	0.02	2.82	-0.07	0.06
H1 Special - TB	6	-0.02	0.02	2.82	-0.09	0.05
H1 Special - TB	7	0.00	0.02	2.82	-0.07	0.06
H1 Special - TB	8	-0.02	0.03	2.82	-0.09	0.06
H1 Special - TB	9	-0.01	0.03	2.82	-0.09	0.07
H1 Special - TB	10	0.02	0.03	2.82	-0.06	0.09
H1 Special - TB	11	0.01	0.02	2.82	-0.06	0.08
H1 Special - TB	12	0.00	0.03	2.82	-0.07	0.08
H1 Differentiated - ETR	-8	0.00	0.02	2.79	-0.06	0.05
H1 Differentiated - ETR	-7	-0.01	0.02	2.79	-0.06	0.03
H1 Differentiated - ETR	-6	0.01	0.02	2.79	-0.03	0.05
H1 Differentiated - ETR	-5	-0.03	0.02	2.79	-0.08	0.03
H1 Differentiated - ETR	-4	0.02	0.05	2.79	-0.13	0.16
H1 Differentiated - ETR	-3	0.05	0.05	2.79	-0.08	0.19

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Table S25 (continued)

Model	Event Time	Att	Se	Crit	Lower	Upper
H1 Differentiated - ETR	-2	-0.08	0.05	2.79	-0.22	0.06
H1 Differentiated - ETR	-1	-0.02	0.05	2.79	-0.16	0.13
H1 Differentiated - ETR	0	-0.01	0.01	2.79	-0.04	0.03
H1 Differentiated - ETR	1	-0.03	0.02	2.79	-0.07	0.02
H1 Differentiated - ETR	2	-0.03	0.02	2.79	-0.08	0.02
H1 Differentiated - ETR	3	0.02	0.02	2.79	-0.04	0.07
H1 Differentiated - ETR	4	0.01	0.02	2.79	-0.05	0.07
H1 Differentiated - ETR	5	0.01	0.02	2.79	-0.05	0.06
H1 Differentiated - ETR	6	0.00	0.02	2.79	-0.06	0.07
H1 Differentiated - ETR	7	-0.01	0.02	2.79	-0.06	0.05
H1 Differentiated - ETR	8	0.00	0.02	2.79	-0.05	0.05
H1 Differentiated - ETR	9	-0.01	0.02	2.79	-0.06	0.05
H1 Differentiated - ETR	10	0.00	0.02	2.79	-0.05	0.06
H1 Differentiated - ETR	11	0.02	0.02	2.79	-0.04	0.08
H1 Differentiated - ETR	12	-0.02	0.03	2.79	-0.10	0.06
H1 Combined - ETR	-8	0.13	0.05	2.77	-0.02	0.28
H1 Combined - ETR	-7	-0.03	0.02	2.77	-0.10	0.03
H1 Combined - ETR	-6	0.00	0.03	2.77	-0.07	0.07
H1 Combined - ETR	-5	0.04	0.04	2.77	-0.06	0.14
H1 Combined - ETR	-4	0.09	0.08	2.77	-0.13	0.31
H1 Combined - ETR	-3	0.06	0.07	2.77	-0.13	0.25
H1 Combined - ETR	-2	-0.06	0.06	2.77	-0.23	0.10
H1 Combined - ETR	-1	-0.15	0.06	2.77	-0.32	0.02
H1 Combined - ETR	0	-0.01	0.04	2.77	-0.11	0.10
H1 Combined - ETR	1	-0.02	0.04	2.77	-0.13	0.09
H1 Combined - ETR	2	0.06	0.05	2.77	-0.08	0.20
H1 Combined - ETR	3	0.02	0.04	2.77	-0.09	0.13
H1 Combined - ETR	4	0.19	0.04	2.77	0.08	0.30
H1 Combined - ETR	5	0.18	0.04	2.77	0.07	0.29
H1 Combined - ETR	6	0.15	0.04	2.77	0.03	0.26
H1 Combined - ETR	7	0.18	0.03	2.77	0.09	0.27
H1 Combined - ETR	8	0.24	0.05	2.77	0.11	0.37

Note. Dynamic window: event time -8 to 12. Table truncated to first 80 rows.

Table S26. Selected dynamic event-study estimates: Differentiated entry (H1) and Differentiated-to-Special transition (H2), all four outcomes

Design	Outcome	Pre-treatment			Post-treatment			
		$e=-8$	$e=-4$	$e=-1$	$e=0$	$e=+4$	$e=+8$	$e=+12$
H1: Differentiated entry	ETR _{it}	-0.00	0.02	-0.02	-0.01	0.01	-0.00	-0.02
	TB _{it}	-0.02	-0.03	0.07**	0.00	0.00	0.00	0.03
	AbnETR _{it}	-0.03	0.02	0.00	-0.02	-0.03	-0.03	-0.03
	AbnTB _{it}	-	-0.01	0.01	-0.01	-0.01	-0.01	-0.00
H2: Differentiated-to-Special transition		0.08**						
	ETR _{it}	-0.07	0.05	0.09	-0.01	-0.05	0.07	-0.03
	TB _{it}	0.01	0.02	-0.01	0.00	0.06	0.15**	0.25***
	AbnETR _{it}	0.05	-0.09	-	0.21***	0.15***	0.04	0.04
		0.17***						
	AbnTB _{it}	0.01	-0.01	-0.00	0.01	0.02	-0.01	0.09***

Notes: Event time e measured in quarters relative to first Differentiated entry (H1) or first Special quarter after Differentiated entry (H2). Firms are indexed by i and quarters by t ; sector j is used in sector-stratified specifications. Cells show Callaway–Sant’Anna (2021) dynamic ATT estimates. Stars: *, **, *** significance at 10%, 5%, 1%.

Table S27. Selected dynamic event-study estimates: Differentiated entry (H1) and Differentiated-to-Special transition (H2), all four outcomes

Design	Outcome	Pre-treatment			Post-treatment			
		$e=-8$	$e=-4$	$e=-1$	$e=0$	$e=+4$	$e=+8$	$e=+12$
H1: Differentiated entry	ETR _{it}	-0.00	0.02	-0.02	-0.01	0.01	-0.00	-0.02
	TB _{it}	-0.02	-0.03	0.07**	0.00	0.00	0.00	0.03
	AbnETR _{it}	-0.03	0.02	0.00	-0.02	-0.03	-0.03	-0.03
	AbnTB _{it}	-	-0.01	0.01	-0.01	-0.01	-0.01	-0.00
H2: Differentiated-to-Special transition		0.08**						
	ETR _{it}	-0.07	0.05	0.09	-0.01	-0.05	0.07	-0.03
	TB _{it}	0.01	0.02	-0.01	0.00	0.06	0.15**	0.25***
	AbnETR _{it}	0.05	-0.09	-	0.21***	0.15***	0.04	0.04
		0.17***						
	AbnTB _{it}	0.01	-0.01	-0.00	0.01	0.02	-0.01	0.09***

Notes: Event time e measured in quarters relative to first Differentiated entry (H1) or first Special quarter after Differentiated entry (H2). Firms are indexed by i and quarters by t ; sector j is used in sector-stratified specifications. Cells show Callaway–Sant’Anna (2021) dynamic ATT estimates. Stars: *, **, *** significance at 10%, 5%, 1%.

Table S28. Additional dynamic staggered DiD estimates by outcome

Regime	Outcome	Event time	Estimate	Std. error	95
Differentiated	ETR	-8.0000	-0.0018	(0.0220)	[-0.0653, 0.0616]
Differentiated	ETR	-4.0000	-0.0363	(0.0191)	[-0.0913, 0.0187]
Differentiated	ETR	-1.0000	-0.0349	(0.0240)	[-0.1040, 0.0343]
Differentiated	ETR	0.0000	-0.0194	(0.0150)	[-0.0625, 0.0237]
Differentiated	ETR	4.0000	-0.0049	(0.0329)	[-0.0996, 0.0898]
Differentiated	ETR	8.0000	0.0021	(0.0290)	[-0.0816, 0.0857]
Differentiated	ETR	12.0000	0.0421	(0.0378)	[-0.0668, 0.1510]
Differentiated	TB	-8.0000	0.0101	(0.0101)	[-0.0211, 0.0414]
Differentiated	TB	-4.0000	-0.0136	(0.0206)	[-0.0771, 0.0500]
Differentiated	TB	-1.0000	-0.0049	(0.0150)	[-0.0512, 0.0415]
Differentiated	TB	0.0000	0.0013	(0.0140)	[-0.0420, 0.0447]
Differentiated	TB	4.0000	0.0230	(0.0275)	[-0.0622, 0.1082]
Differentiated	TB	8.0000	0.0208	(0.0246)	[-0.0554, 0.0969]
Differentiated	TB	12.0000	0.0390	(0.0285)	[-0.0490, 0.1271]
Differentiated	AbnETR	-8.0000	0.0695	(0.0783)	[-0.1389, 0.2778]
Differentiated	AbnETR	-4.0000	0.0040	(0.0145)	[-0.0345, 0.0426]
Differentiated	AbnETR	-1.0000	-0.0066	(0.0462)	[-0.1295, 0.1163]
Differentiated	AbnETR	0.0000	-0.0467	(0.0299)	[-0.1262, 0.0329]
Differentiated	AbnETR	4.0000	-0.0138	(0.0353)	[-0.1078, 0.0801]
Differentiated	AbnETR	8.0000	-0.0239	(0.0514)	[-0.1606, 0.1129]
Differentiated	AbnETR	12.0000	-0.0910	(0.0536)	[-0.2337, 0.0517]
Differentiated	AbnTB	-8.0000	0.0152	(0.0076)	[-0.0049, 0.0353]
Differentiated	AbnTB	-4.0000	-0.0394	(0.0318)	[-0.1232, 0.0445]
Differentiated	AbnTB	-1.0000	-0.0253	(0.0207)	[-0.0800, 0.0294]
Differentiated	AbnTB	0.0000	0.0012	(0.0132)	[-0.0336, 0.0359]
Differentiated	AbnTB	4.0000	0.0149	(0.0223)	[-0.0440, 0.0738]
Differentiated	AbnTB	8.0000	0.0035	(0.0139)	[-0.0331, 0.0402]
Differentiated	AbnTB	12.0000	0.0188	(0.0152)	[-0.0213, 0.0589]
Special	ETR	-8.0000	-0.0833	(0.0331)	[-0.1636, -0.0030]
Special	ETR	-4.0000	0.0470	(0.0382)	[-0.0458, 0.1397]
Special	ETR	-1.0000	0.0337	(0.0544)	[-0.0984, 0.1657]
Special	ETR	0.0000	-0.0037	(0.0577)	[-0.1437, 0.1362]
Special	ETR	4.0000	-0.0567	(0.0674)	[-0.2202, 0.1067]
Special	ETR	8.0000	-0.0642	(0.0720)	[-0.2389, 0.1106]
Special	ETR	12.0000	-0.0286	(0.0657)	[-0.1880, 0.1308]
Special	TB	-8.0000	0.0693	(0.0453)	[-0.0359, 0.1745]
Special	TB	-4.0000	0.0528	(0.0224)	[0.0007, 0.1048]
Special	TB	-1.0000	0.0057	(0.0148)	[-0.0286, 0.0400]
Special	TB	0.0000	0.0203	(0.0169)	[-0.0189, 0.0596]
Special	TB	4.0000	0.0099	(0.0188)	[-0.0337, 0.0535]
Special	TB	8.0000	0.0297	(0.0281)	[-0.0354, 0.0948]
Special	TB	12.0000	0.0402	(0.0199)	[-0.0059, 0.0864]
Special	AbnETR	-8.0000	-0.0017	(0.0255)	[-0.0650, 0.0616]
Special	AbnETR	-4.0000	-0.1437	(0.1677)	[-0.5598, 0.2724]
Special	AbnETR	-1.0000	-0.0617	(0.0806)	[-0.2618, 0.1384]
Special	AbnETR	0.0000	-0.0252	(0.0598)	[-0.1737, 0.1233]
Special	AbnETR	4.0000	-0.0547	(0.0647)	[-0.2152, 0.1058]
Special	AbnETR	8.0000	-0.0298	(0.0894)	[-0.2516, 0.1920]
Special	AbnETR	12.0000	0.0109	(0.1030)	[-0.2448, 0.2665]
Special	AbnTB	-8.0000	-0.0118	(0.0246)	[-0.0783, 0.0547]
Special	AbnTB	-4.0000	0.0426	(0.0264)	[-0.0287, 0.1138]
Special	AbnTB	-1.0000	-0.0031	(0.0082)	[-0.0253, 0.0192]
Special	AbnTB	0.0000	0.0193	(0.0111)	[-0.0109, 0.0494]
Special	AbnTB	4.0000	0.0173	(0.0234)	[-0.0460, 0.0806]
Special	AbnTB	8.0000	0.0116	(0.0124)	[-0.0221, 0.0452]
Special	AbnTB	12.0000	0.0092	(0.0134)	[-0.0270, 0.0454]
Differentiated + special	ETR	-1.0000	0.0508	(0.0235)	[-0.0023, 0.1039]
Differentiated + special	ETR	0.0000	-0.0282	(0.0809)	[-0.2106, 0.1542]
Differentiated + special	ETR	4.0000	-0.0703	(0.1051)	[-0.3073, 0.1666]
Differentiated + special	ETR	8.0000	0.0162	(0.0672)	[-0.1353, 0.1678]
Differentiated + special	ETR	12.0000	-0.1359	(0.0428)	[-0.2324, -0.0393]
Differentiated + special	TB	-1.0000	-0.0264	(0.0232)	[-0.0903, 0.0375]
Differentiated + special	TB	0.0000	0.0212	(0.0383)	[-0.0844, 0.1267]
Differentiated + special	TB	4.0000	0.0676	(0.0526)	[-0.0775, 0.2126]
Differentiated + special	TB	8.0000	0.0717	(0.0516)	[-0.0704, 0.2138]
Differentiated + special	TB	12.0000	0.0707	(0.0466)	[-0.0577, 0.1992]
Differentiated + special	AbnETR	-1.0000	0.0414	(0.0379)	[-0.0401, 0.1228]
Differentiated + special	AbnETR	0.0000	-0.0423	(0.0281)	[-0.1028, 0.0181]
Differentiated + special	AbnETR	4.0000	-0.1110	(0.0697)	[-0.2610, 0.0389]
Differentiated + special	AbnETR	8.0000	-0.1470	(0.1077)	[-0.3788, 0.0847]
Differentiated + special	AbnETR	12.0000	-0.0553	(0.0738)	[-0.2105, 0.1000]

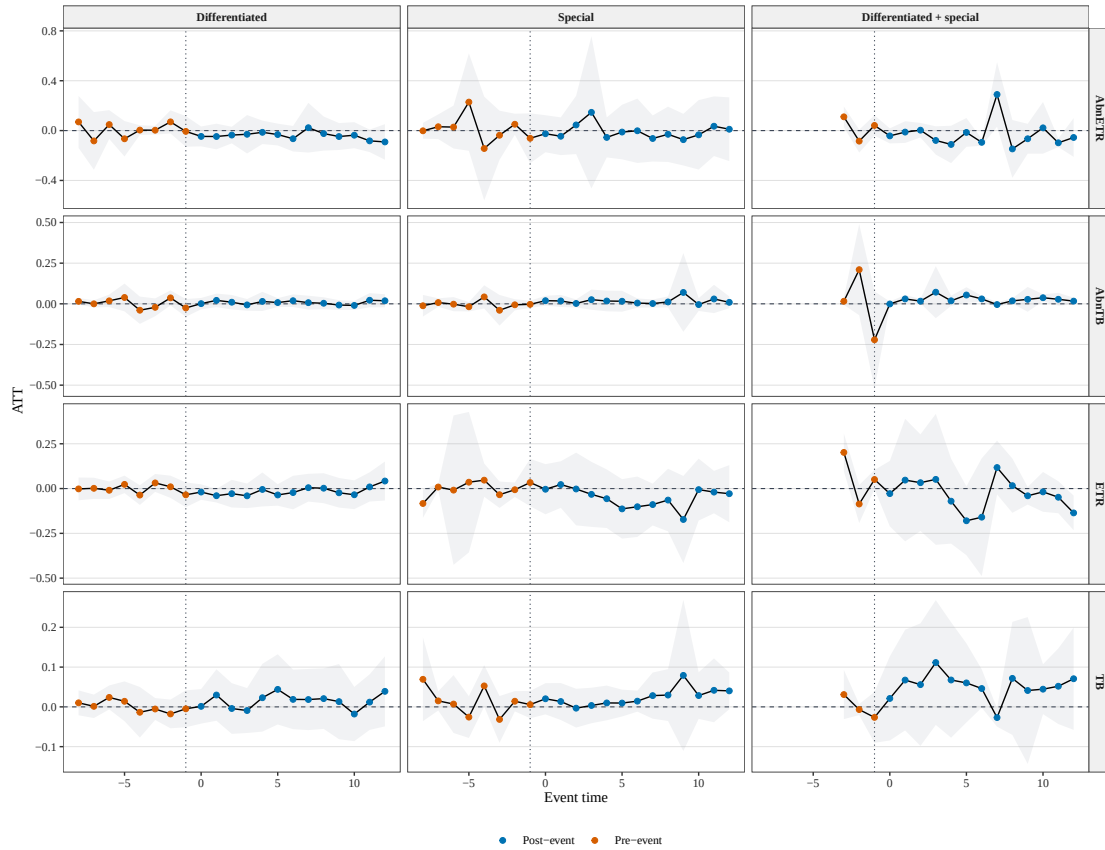


Figure S7. Additional dynamic effects from the staggered DiD event study by regime and outcome

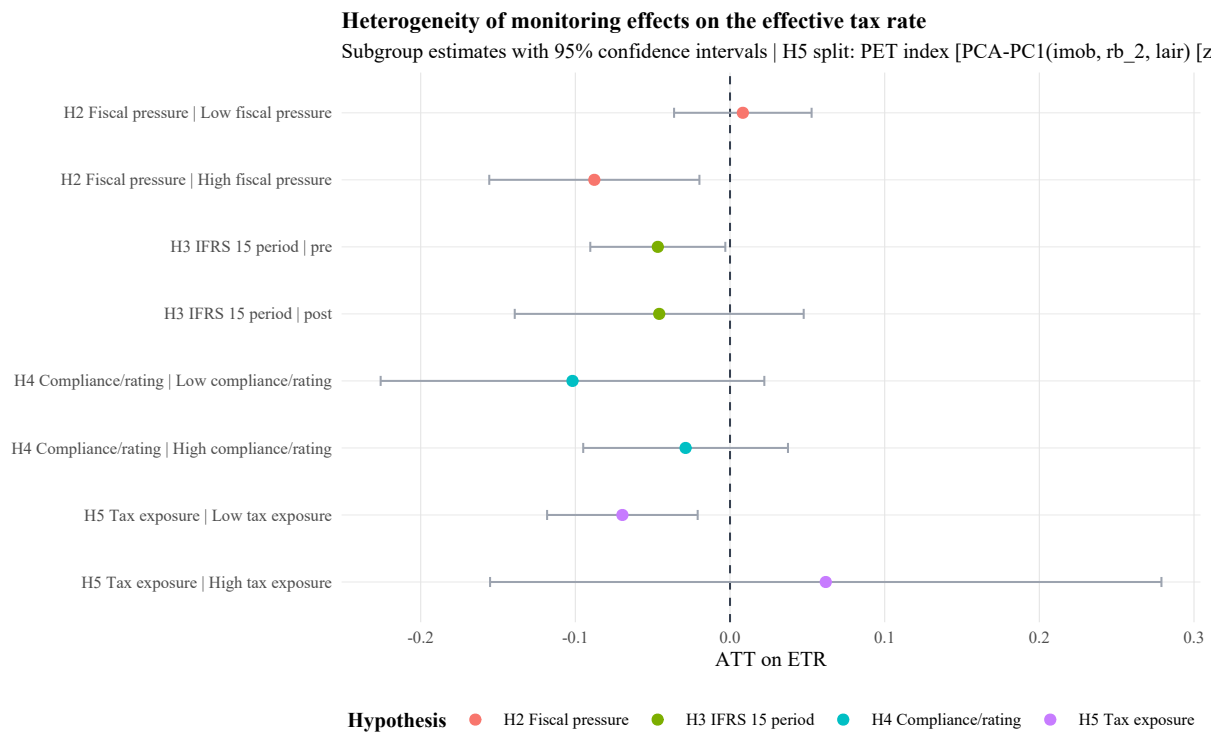


Figure S8. Heterogeneity of monitoring effects on the effective tax rate. H5 subgroups are defined by the PET index (first principal component of z-score standardized fixed assets, gross revenue and pre-tax income).

Table S29. Heterogeneity of the monitoring effect by tax-burden outcome

Hypothesis	Subgroup	Outcome	Estimate	Std. error	95
H2 IFRS 15 period	pre	ETR	-0.0427	(0.0735)	[-0.1866, 0.1013]
H2 IFRS 15 period	post	ETR	0.0479	(0.0445)	[-0.0394, 0.1351]
H2 IFRS 15 period	pre	TB	0.0523	(0.0331)	[-0.0125, 0.1171]
H2 IFRS 15 period	post	TB	-0.0216**	(0.0107)	[-0.0425, -0.0007]
H2 IFRS 15 period	pre	AbnETR			
_Med	-0.0338	(0.0713)	[-0.1734, 0.1059]		
H2 IFRS 15 period	post	AbnETR			
_Med	0.0397	(0.0513)	[-0.0607, 0.1402]		
H2 IFRS 15 period	pre	AbnTB			
_Med	0.0176	(0.0152)	[-0.0122, 0.0474]		
H2 IFRS 15 period	post	AbnTB			
_Med	0.0166**	(0.0070)	[0.0029, 0.0302]		
H3 Compliance/rating	Low compliance/rating	ETR	-0.0177	(0.0349)	[-0.0861, 0.0508]
H3 Compliance/rating	High compliance/rating	ETR	-0.0161	(0.0590)	[-0.1317, 0.0995]
H3 Compliance/rating	Low compliance/rating	TB	-0.0030	(0.0275)	[-0.0570, 0.0509]
H3 Compliance/rating	High compliance/rating	TB	0.0602*	(0.0328)	[-0.0040, 0.1244]
H3 Compliance/rating	Low compliance/rating	AbnETR			
_Med	-0.1766	(0.1815)	[-0.5323, 0.1791]		
H3 Compliance/rating	High compliance/rating	AbnETR			
_Med	0.0570	(0.0530)	[-0.0468, 0.1608]		
H3 Compliance/rating	Low compliance/rating	AbnTB			
_Med	0.0140	(0.0142)	[-0.0139, 0.0420]		
H3 Compliance/rating	High compliance/rating	AbnTB			
_Med	0.0145	(0.0141)	[-0.0131, 0.0420]		
H4 Tax exposure	Low tax exposure	ETR	0.0226	(0.0603)	[-0.0955, 0.1407]
H4 Tax exposure	High tax exposure	ETR	-0.0730	(0.1144)	[-0.2972, 0.1512]
H4 Tax exposure	Low tax exposure	TB	0.0050	(0.0115)	[-0.0176, 0.0275]
H4 Tax exposure	High tax exposure	TB	0.1154***	(0.0344)	[0.0480, 0.1828]
H4 Tax exposure	Low tax exposure	AbnETR			
_Med	0.0354	(0.0840)	[-0.1292, 0.1999]		
H4 Tax exposure	High tax exposure	AbnETR			
_Med	-0.0004	(0.1680)	[-0.3296, 0.3288]		
H4 Tax exposure	Low tax exposure	AbnTB			
_Med	0.0069	(0.0119)	[-0.0164, 0.0301]		
H4 Tax exposure	High tax exposure	AbnTB			
_Med	0.0244	(0.0270)	[-0.0286, 0.0774]		

Notes: Heterogeneity estimates use pre-treatment or predetermined strata and are reported for all tax-burden outcomes. These are effect-heterogeneity estimates, not mediation decompositions.

Table S30. Additional heterogeneity estimates by tax-burden outcome

Hypothesis	Subgroup	Outcome	Estimate	Std. error	95
H2 IFRS 15 period	pre	ETR	-0.0427	(0.0846)	[-0.2085, 0.1231]
H2 IFRS 15 period	post	ETR	0.0479	(0.0401)	[-0.0307, 0.1264]
H2 IFRS 15 period	pre	TB	0.0523*	(0.0271)	[-0.0008, 0.1054]
H2 IFRS 15 period	post	TB	-0.0216**	(0.0094)	[-0.0400, -0.0032]
H2 IFRS 15 period	pre	AbnETR			
_Med	-0.0338	(0.0868)	[-0.2039, 0.1364]		
H2 IFRS 15 period	post	AbnETR			
_Med	0.0397	(0.0552)	[-0.0684, 0.1479]		
H2 IFRS 15 period	pre	AbnTB			
_Med	0.0176	(0.0198)	[-0.0211, 0.0563]		
H2 IFRS 15 period	post	AbnTB			
_Med	0.0166***	(0.0058)	[0.0053, 0.0279]		
H3 Compliance/rating	Low compliance/rating	ETR	-0.0177	(0.0272)	[-0.0710, 0.0357]
H3 Compliance/rating	High compliance/rating	ETR	-0.0161	(0.0590)	[-0.1317, 0.0995]
H3 Compliance/rating	Low compliance/rating	TB	-0.0030	(0.0293)	[-0.0604, 0.0543]
H3 Compliance/rating	High compliance/rating	TB	0.0602**	(0.0293)	[0.0028, 0.1176]
H3 Compliance/rating	Low compliance/rating	AbnETR			
_Med	-0.1766	(0.1733)	[-0.5162, 0.1630]		
H3 Compliance/rating	High compliance/rating	AbnETR			
_Med	0.0570	(0.0724)	[-0.0850, 0.1990]		
H3 Compliance/rating	Low compliance/rating	AbnTB			
_Med	0.0140	(0.0113)	[-0.0082, 0.0363]		
H3 Compliance/rating	High compliance/rating	AbnTB			
_Med	0.0145	(0.0134)	[-0.0119, 0.0408]		
H4 Tax exposure	Low tax exposure	ETR	0.0226	(0.0670)	[-0.1087, 0.1540]
H4 Tax exposure	High tax exposure	ETR	-0.0730	(0.0751)	[-0.2202, 0.0741]
H4 Tax exposure	Low tax exposure	TB	0.0050	(0.0101)	[-0.0149, 0.0248]
H4 Tax exposure	High tax exposure	TB	0.1154***	(0.0328)	[0.0512, 0.1796]
H4 Tax exposure	Low tax exposure	AbnETR			
_Med	0.0354	(0.0981)	[-0.1570, 0.2278]		
H4 Tax exposure	High tax exposure	AbnETR			
_Med	-0.0004	(0.1047)	[-0.2055, 0.2047]		
H4 Tax exposure	Low tax exposure	AbnTB			
_Med	0.0069	(0.0115)	[-0.0157, 0.0295]		
H4 Tax exposure	High tax exposure	AbnTB			
_Med	0.0244	(0.0240)	[-0.0226, 0.0714]		

Notes: Appendix table reporting heterogeneity estimates for ETR, TB, AbnETR, and AbnTB.

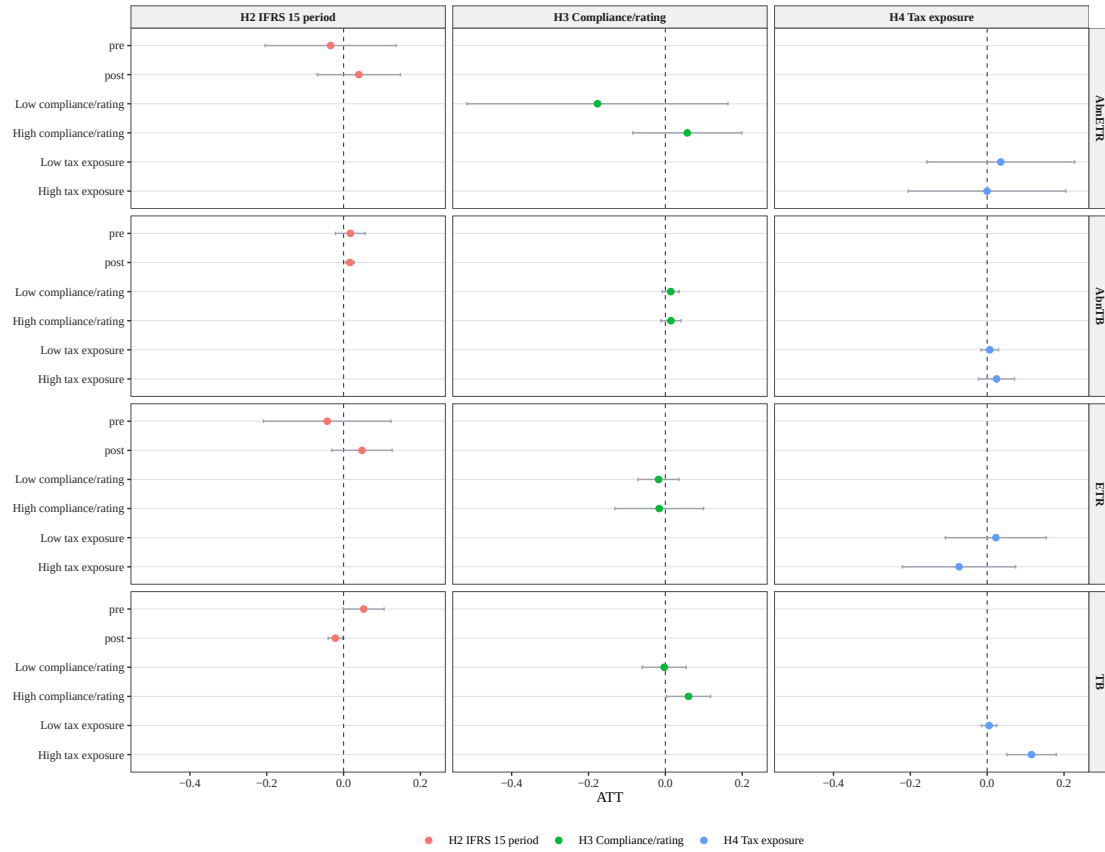


Figure S9. Additional heterogeneity of monitoring effects by tax-burden outcome

Table S31. Additional regression discontinuity estimates by tax-burden outcome

Regime	Specification	Outcome	Estimate	Std. error	Bandwidth	p-value
Special	Baseline	ETR	-0.0130	(0.0288)	874.46	0.6520
Special	Baseline	TB	-0.0303	(0.0453)	569.71	0.5029
Special	Baseline	AbnETR	0.0099	(0.0163)	905.16	0.5419
Special	Baseline	AbnTB	-0.0068	(0.0092)	670.92	0.4579
Special	Covariate adjusted	ETR	-0.0372	(0.0279)	690.18	0.1816

Notes: Appendix table reporting RDD estimates for ETR, TB, AbnETR, and AbnTB.

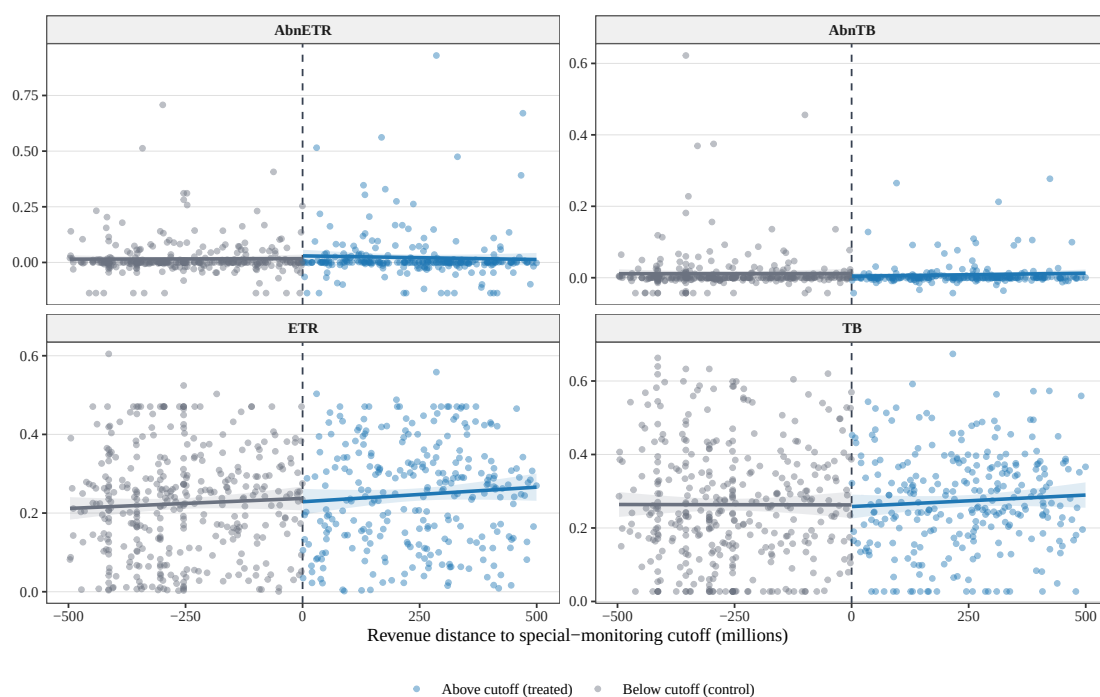


Figure S10. Additional RDD diagnostics around the special-monitoring revenue cutoff by outcome

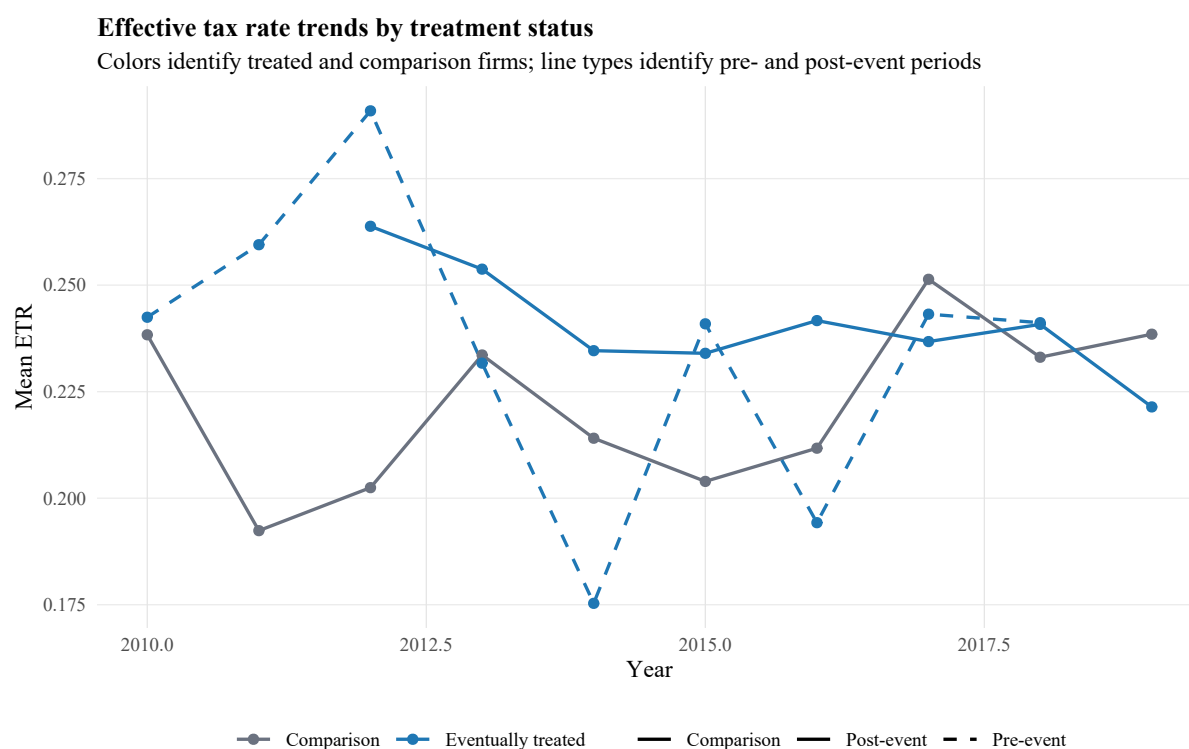


Figure S11. Effective tax rate trends by treatment status

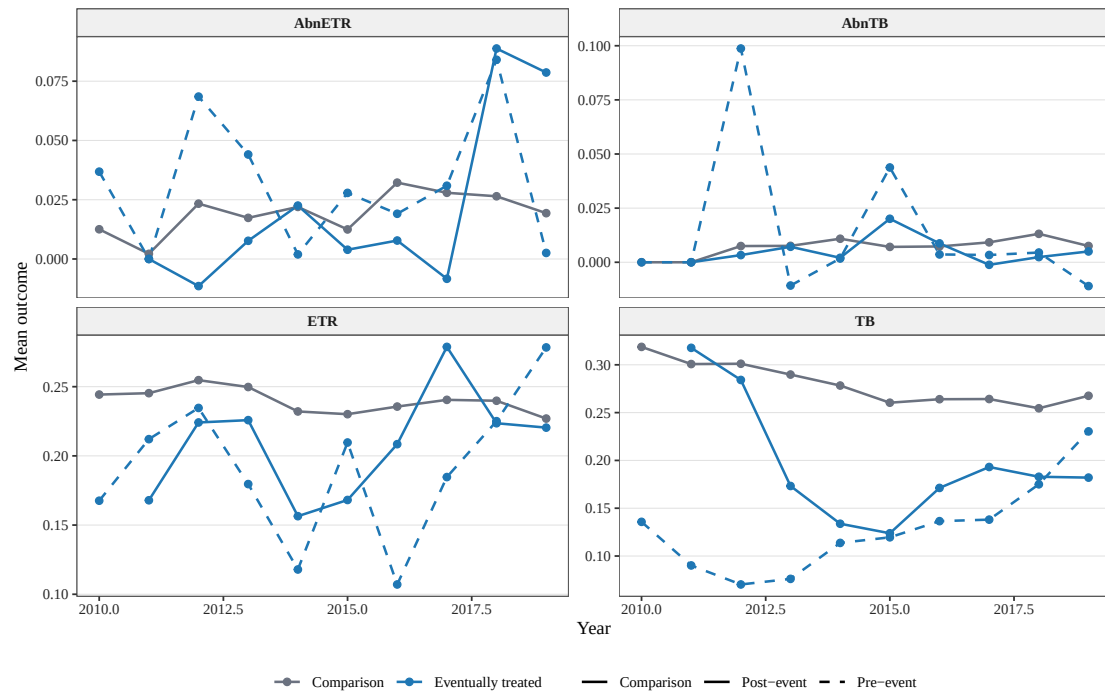


Figure S12. Additional tax-burden outcome trends by treatment status

Appendix G Annual-frequency replication and sector robustness

This appendix replicates the main analysis at annual frequency and reports additional sector- and regulation-based robustness samples.

Table S32. Annual replication of main monitoring estimates

Model	Att	Se	Lower	Upper	Control Group	Gvar
Annual replication - annual_special_ETR	-0.05	0.02	-0.10	-0.01	notyettreated	g_espec_annual
Annual replication - annual_special_TB	0.00	0.02	-0.04	0.03	notyettreated	g_espec_annual
Annual replication - annual_special_AbnETR_Med	0.01	0.01	-0.01	0.03	notyettreated	g_espec_annual
Annual replication - annual_special_AbnTB_Med	0.00	0.00	-0.01	0.00	notyettreated	g_espec_annual

Note. Notes: Annual estimates use the firm-year panel and g_espec_annual while preserving the original treatment timing and cohort assignment.

Table S33. Annual event-study estimates

Model	Event Time	Att	Se	Crit	Lower	Upper
Annual replication - annual_special_ETR	-7	0.12	0.08	2.83	-0.10	0.34
Annual replication - annual_special_ETR	-6	-0.10	0.03	2.83	-0.19	-0.01
Annual replication - annual_special_ETR	-5	0.01	0.10	2.83	-0.26	0.28
Annual replication - annual_special_ETR	-4	-0.03	0.10	2.83	-0.33	0.26
Annual replication - annual_special_ETR	-3	0.06	0.05	2.83	-0.07	0.19
Annual replication - annual_special_ETR	-2	0.00	0.04	2.83	-0.11	0.11
Annual replication - annual_special_ETR	-1	0.04	0.03	2.83	-0.04	0.12
Annual replication - annual_special_ETR	0	-0.01	0.02	2.83	-0.05	0.04
Annual replication - annual_special_ETR	1	-0.04	0.03	2.83	-0.12	0.03
Annual replication - annual_special_ETR	2	-0.05	0.03	2.83	-0.12	0.03
Annual replication - annual_special_ETR	3	-0.05	0.03	2.83	-0.14	0.03
Annual replication - annual_special_ETR	4	-0.04	0.03	2.83	-0.12	0.04
Annual replication - annual_special_ETR	5	-0.08	0.03	2.83	-0.16	-0.01
Annual replication - annual_special_ETR	6	-0.08	0.03	2.83	-0.16	0.00
Annual replication - annual_special_ETR	7	-0.09	0.03	2.83	-0.17	0.00
Annual replication - annual_special_TB	-7	-0.04	0.10	2.60	-0.31	0.23
Annual replication - annual_special_TB	-6	0.01	0.02	2.60	-0.03	0.05
Annual replication - annual_special_TB	-5	0.04	0.18	2.60	-0.43	0.52
Annual replication - annual_special_TB	-4	-0.09	0.18	2.60	-0.56	0.38
Annual replication - annual_special_TB	-3	0.04	0.05	2.60	-0.09	0.17
Annual replication - annual_special_TB	-2	0.10	0.05	2.60	-0.02	0.23
Annual replication - annual_special_TB	-1	-0.01	0.02	2.60	-0.06	0.05
Annual replication - annual_special_TB	0	0.01	0.01	2.60	-0.03	0.04
Annual replication - annual_special_TB	1	-0.02	0.02	2.60	-0.08	0.05
Annual replication - annual_special_TB	2	0.02	0.02	2.60	-0.04	0.09
Annual replication - annual_special_TB	3	0.00	0.02	2.60	-0.07	0.06
Annual replication - annual_special_TB	4	-0.01	0.02	2.60	-0.08	0.05
Annual replication - annual_special_TB	5	-0.02	0.03	2.60	-0.08	0.05
Annual replication - annual_special_TB	6	0.00	0.03	2.60	-0.07	0.07

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Table S33 (continued)

Model	Event Time	Att	Se	Crit	Lower	Upper
Annual replication - annual_special_TB	7	-0.02	0.02	2.60	-0.08	0.04
Annual replication - annual_special_AbnETR_Med	-7	0.09	0.04	2.58	-0.01	0.18
Annual replication - annual_special_AbnETR_Med	-6	0.12	0.14	2.58	-0.24	0.48
Annual replication - annual_special_AbnETR_Med	-5	-0.11	0.14	2.58	-0.46	0.24
Annual replication - annual_special_AbnETR_Med	-4	-0.03	0.02	2.58	-0.09	0.04
Annual replication - annual_special_AbnETR_Med	-3	0.02	0.02	2.58	-0.03	0.07
Annual replication - annual_special_AbnETR_Med	-2	0.03	0.03	2.58	-0.04	0.10
Annual replication - annual_special_AbnETR_Med	-1	-0.02	0.02	2.58	-0.07	0.04
Annual replication - annual_special_AbnETR_Med	0	0.01	0.02	2.58	-0.04	0.05
Annual replication - annual_special_AbnETR_Med	1	0.01	0.01	2.58	-0.02	0.05
Annual replication - annual_special_AbnETR_Med	2	0.00	0.01	2.58	-0.04	0.04
Annual replication - annual_special_AbnETR_Med	3	0.00	0.01	2.58	-0.04	0.03
Annual replication - annual_special_AbnETR_Med	4	0.03	0.02	2.58	-0.01	0.07
Annual replication - annual_special_AbnETR_Med	5	0.01	0.01	2.58	-0.02	0.05
Annual replication - annual_special_AbnETR_Med	6	0.01	0.01	2.58	-0.02	0.04
Annual replication - annual_special_AbnETR_Med	7	0.01	0.01	2.58	-0.02	0.05
Annual replication - annual_special_AbnTB_Med	-7	0.00		2.32		
Annual replication - annual_special_AbnTB_Med	-6	-0.02	0.02	2.32	-0.06	0.02
Annual replication - annual_special_AbnTB_Med	-5	0.00	0.02	2.32	-0.05	0.04
Annual replication - annual_special_AbnTB_Med	-4	0.01	0.03	2.32	-0.05	0.07
Annual replication - annual_special_AbnTB_Med	-3	0.02	0.03	2.32	-0.04	0.07
Annual replication - annual_special_AbnTB_Med	-2	-0.01	0.01	2.32	-0.02	0.01
Annual replication - annual_special_AbnTB_Med	-1	0.00	0.00	2.32	0.00	0.00
Annual replication - annual_special_AbnTB_Med	0	-0.01	0.01	2.32	-0.04	0.02
Annual replication - annual_special_AbnTB_Med	1	0.00	0.01	2.32	-0.02	0.02
Annual replication - annual_special_AbnTB_Med	2	-0.01	0.02	2.32	-0.06	0.04
Annual replication - annual_special_AbnTB_Med	3	0.00	0.01	2.32	-0.01	0.01
Annual replication - annual_special_AbnTB_Med	4	0.00	0.01	2.32	-0.01	0.01
Annual replication - annual_special_AbnTB_Med	5	0.00	0.01	2.32	-0.02	0.03
Annual replication - annual_special_AbnTB_Med	6	0.01	0.01	2.32	-0.01	0.03
Annual replication - annual_special_AbnTB_Med	7	0.00	0.00	2.32	-0.01	0.01

Note. Notes: Annual event-study coefficients use calendar-year event time and the annual cohort variable.

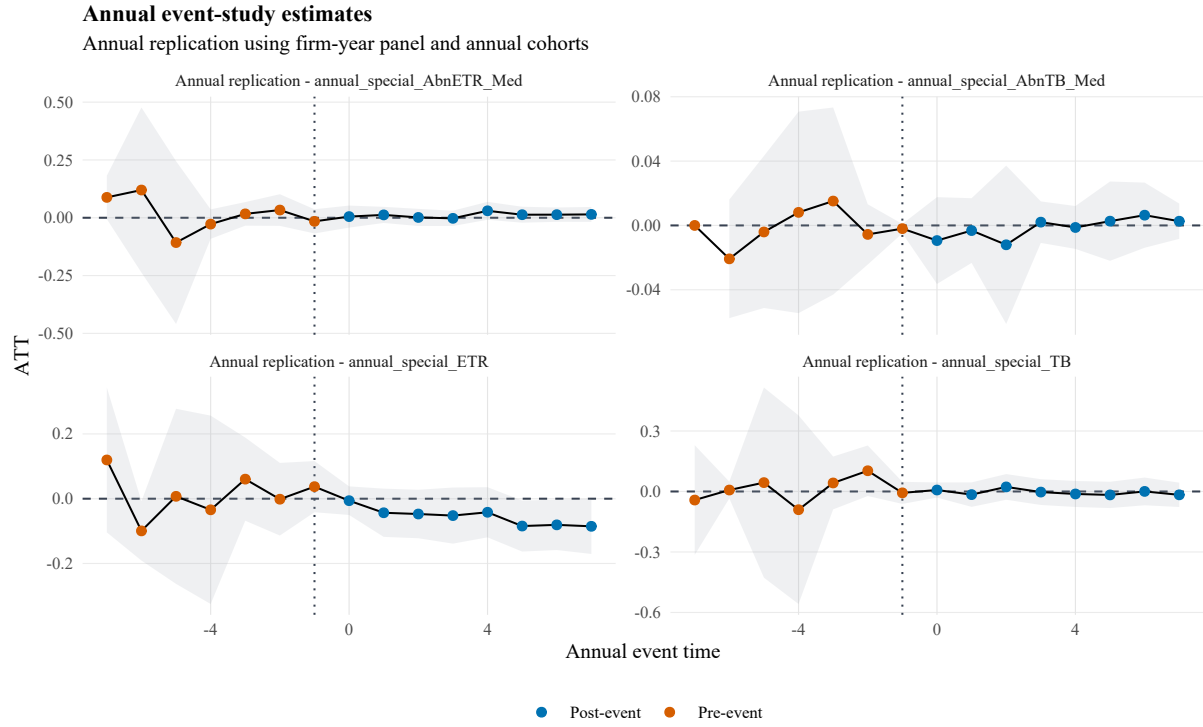


Figure S13. Annual event-study estimates from the firm-year replication

Table S34. Annual heterogeneity estimates

Model	Att	Se	Lower	Upper	Control Group	Gvar	Yvar	Split	Hypothesis
Annual H2 Fiscal pressure — Low fiscal pressure	0.00	0.02	-0.04	0.05	notyettreated	g_espec_annual	ETR	Low fiscal pressure	Annual H2 Fiscal pressure
Annual H2 Fiscal pressure — High fiscal pressure	-0.10	0.03	-0.17	-0.03	notyettreated	g_espec_annual	ETR	High fiscal pressure	Annual H2 Fiscal pressure
Annual H4 Compliance/rating — Low compliance/rating	-0.11	0.07	-0.24	0.02	notyettreated	g_espec_annual	ETR	Low compliance/rating	Annual H4 Compliance/rating
Annual H4 Compliance/rating — High compliance/rating	-0.03	0.03	-0.09	0.03	notyettreated	g_espec_annual	ETR	High compliance/rating	Annual H4 Compliance/rating
Annual H5 Tax exposure — Low tax exposure	-0.07	0.02	-0.12	-0.02	notyettreated	g_espec_annual	ETR	Low tax exposure	Annual H5 Tax exposure
Annual H5 Tax exposure — High tax exposure	0.25	0.02	0.20	0.29	notyettreated	g_espec_annual	ETR	High tax exposure	Annual H5 Tax exposure
Annual H5 Regulation — High regulation	0.10	0.07	-0.03	0.24	notyettreated	g_espec_annual	ETR	High regulation	Annual H5 Regulation
Annual H6 Governance — Low governance	-0.11	0.07	-0.24	0.02	notyettreated	g_espec_annual	ETR	Low governance	Annual H6 Governance
Annual H6 Governance — High governance	-0.03	0.03	-0.09	0.03	notyettreated	g_espec_annual	ETR	High governance	Annual H6 Governance

Note. Notes: Annual heterogeneity estimates mirror the quarterly split logic using the annual firm-year panel.

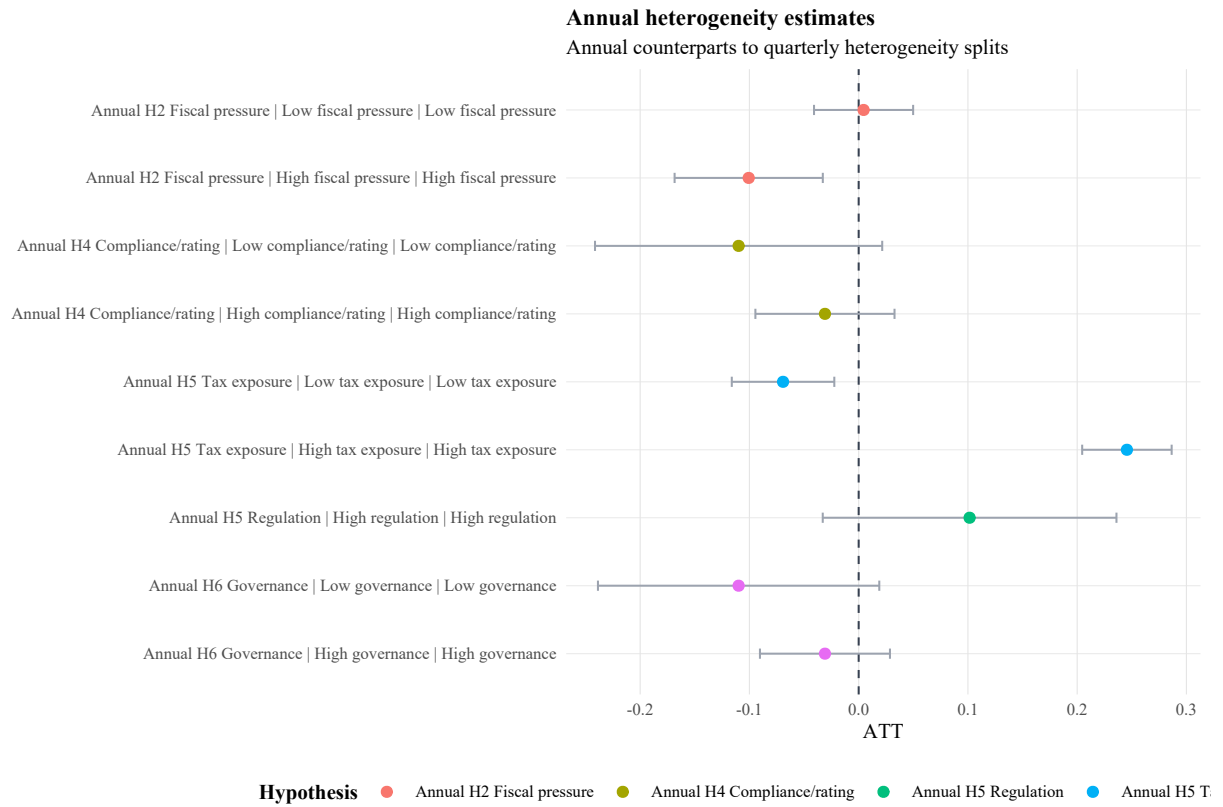


Figure S14. Annual heterogeneity estimates

Table S35. Annual estimates by regulated-sector sample

Model	Att	Se	Lower	Upper	Control
Annual regulated-sector sample - annual_full_sample_all_sectors_ETR	-0.05	0.02	-0.10	-0.01	notyet
Annual regulated-sector sample - annual_full_sample_all_sectors_TB	0.00	0.02	-0.04	0.04	notyet
Annual regulated-sector sample - annual_full_sample_all_sectors_AbnETR_Med	0.01	0.01	-0.01	0.03	notyet
Annual regulated-sector sample - annual_full_sample_all_sectors_AbnTB_Med	0.00	0.00	-0.01	0.00	notyet
Annual regulated-sector sample - annual_utilities_only_ETR	0.08	0.07	-0.06	0.21	notyet
Annual regulated-sector sample - annual_utilities_only_TB	-0.08	0.06	-0.19	0.04	notyet
Annual regulated-sector sample - annual_utilities_only_AbnETR_Med	-0.02	0.02	-0.06	0.01	notyet
Annual regulated-sector sample - annual_utilities_only_AbnTB_Med	-0.03	0.02	-0.06	0.00	notyet

Note. Notes: Annual full-sample, financial-only, and utilities-only estimates preserve the original treatment classification.

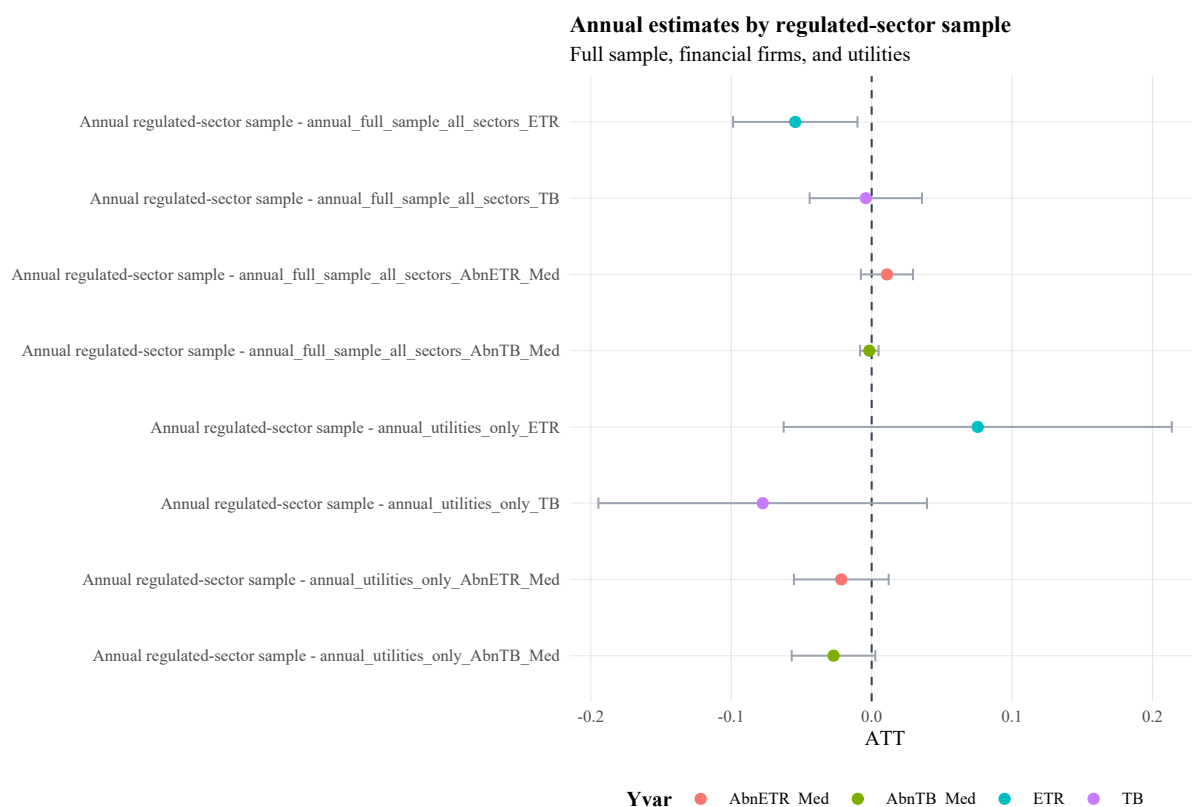


Figure S15. Annual monitoring estimates by regulated-sector sample

Table S36. Quarterly versus annual comparison of monitoring estimates

Frequency	Model	Yvar	Att	Se	Lower	Upper	p Value	Sign	Significant 10pet	Economic Magnitude	Control Group
Quarterly	H1 Special - ETR	ETR	-0.05	0.02	-0.09	0.00	0.04	Negative	Yes	-0.05	notyettreated
Quarterly	H1 Special - TB	TB	0.00	0.02	-0.04	0.04	0.88	Negative	No	0.00	notyettreated
Quarterly	H1 Special - AbnETR_Med	AbnETR_Med	0.02	0.01	0.00	0.04	0.02	Positive	Yes	0.02	notyettreated
Quarterly	H1 Special - AbnTB_Med	AbnTB_Med	0.00	0.00	0.00	0.01	0.41	Positive	No	0.00	notyettreated
Quarterly	H1 Special - ETR never-treated	ETR	-0.05	0.02	-0.09	-0.01	0.01	Negative	Yes	-0.05	nevertreated
Quarterly	H1 Special - ETR 2010-2018	ETR	-0.04	0.02	-0.08	0.00	0.06	Negative	Yes	-0.04	notyettreated
Quarterly	H1 Special - ETR ENTROPY (preferred) never-treated [MAIN]	ETR	0.02	0.07	-0.11	0.15	0.79	Positive	No	0.02	nevertreated
Quarterly	H1 Special - ETR PSM (robustness) never-treated	ETR	-0.05	0.02	-0.09	-0.01	0.02	Negative	Yes	-0.05	nevertreated
Annual Q4/firm-year	Annual replication - annual_special_ETR	ETR	-0.05	0.02	-0.10	-0.01	0.01	Negative	Yes	-0.05	notyettreated
Annual Q4/firm-year	Annual replication - annual_special_TB	TB	0.00	0.02	-0.04	0.03	0.83	Negative	No	0.00	notyettreated
Annual Q4/firm-year	Annual replication - annual_special_AbnETR_Med	AbnETR_Med	0.01	0.01	-0.01	0.03	0.25	Positive	No	0.01	notyettreated
Annual Q4/firm-year	Annual replication - annual_special_AbnTB_Med	AbnTB_Med	0.00	0.00	-0.01	0.00	0.61	Negative	No	0.00	notyettreated

Note. Notes: This table compares sign, magnitude, and significance across quarterly and annual specifications.

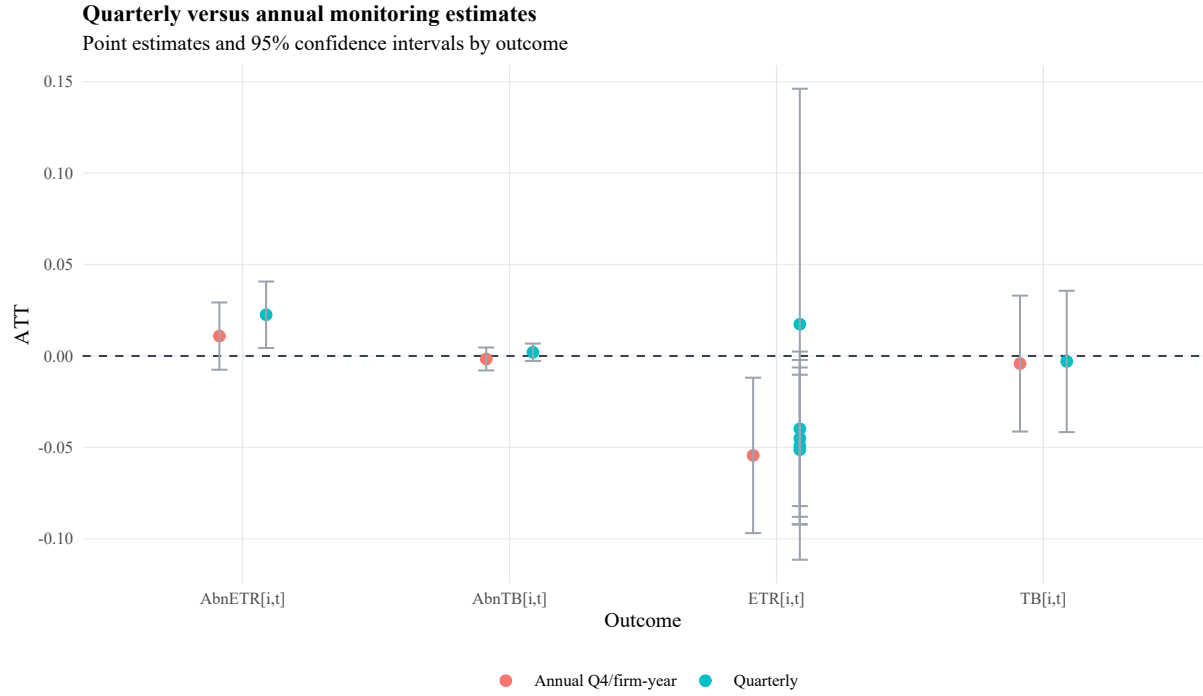


Figure S16. Quarterly versus annual comparison of monitoring estimates

Table S37. Regulatory-sector heterogeneity in monitoring effects

Model	Att	Se	Lower	Upper	Control Group	Gvar	Yvar	Split	Hypothesis
H5 Regulatory-sector heterogeneity — High regulation	0.09	0.06	-0.03	0.21	notyettreated	g_espec	ETR	High regulation	H5 Regulatory-sector heterogeneity

Note. Notes: Regulation groups are predetermined sector partitions. These estimates are heterogeneity comparisons, not mediation.

Table S38. Expanded sample estimates by regulated-sector sample

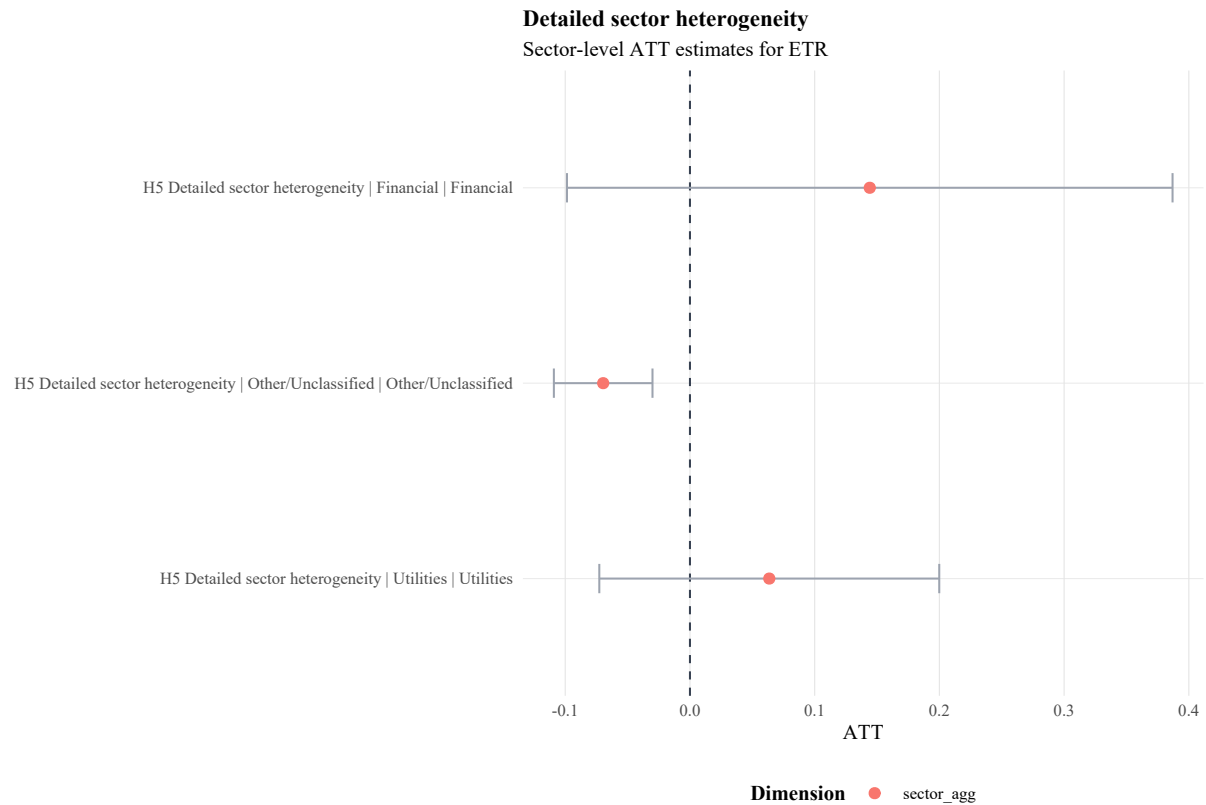
Model	Att	Se	Lower	Upper	Control Group	Gvar
Regulated-sector sample - full_sample_all_sectors_ETR	-0.05	0.02	-0.09	0.00	notyettreated	g_espec
Regulated-sector sample - full_sample_all_sectors_TB	0.00	0.02	-0.04	0.04	notyettreated	g_espec
Regulated-sector sample - full_sample_all_sectors_AbnETR_Med	0.02	0.01	0.00	0.04	notyettreated	g_espec
Regulated-sector sample - full_sample_all_sectors_AbnTB_Med	0.00	0.00	0.00	0.01	notyettreated	g_espec
Regulated-sector sample - financial_only_ETR	0.14	0.12	-0.08	0.37	notyettreated	g_espec
Regulated-sector sample - financial_only_TB	-0.08	0.03	-0.15	-0.02	notyettreated	g_espec
Regulated-sector sample - financial_only_AbnETR_Med	-0.09	0.05	-0.19	0.01	notyettreated	g_espec
Regulated-sector sample - financial_only_AbnTB_Med	-0.03	0.02	-0.07	0.00	notyettreated	g_espec
Regulated-sector sample - utilities_only_ETR	0.06	0.07	-0.08	0.20	notyettreated	g_espec
Regulated-sector sample - utilities_only_TB	-0.05	0.10	-0.25	0.14	notyettreated	g_espec
Regulated-sector sample - utilities_only_AbnETR_Med	0.00	0.02	-0.05	0.04	notyettreated	g_espec
Regulated-sector sample - utilities_only_AbnTB_Med	-0.01	0.01	-0.03	0.00	notyettreated	g_espec

Note. Notes: Estimates preserve the original treatment timing and cohort assignment. Samples are full sample, financial firms only, and utilities only where those groups are identified in the available data.

Table S39. Detailed sector heterogeneity in monitoring effects

Model	Att	Se	Lower	Upper	Control Group	Gvar	Yvar	Dimension	Group
H5 Detailed sector heterogeneity — Financial	0.14	0.12	-0.10	0.39	notyettreated	g_espec	ETR	sector_agg	Financial
H5 Detailed sector heterogeneity — Other/Unclassified	-0.07	0.02	-0.11	-0.03	notyettreated	g_espec	ETR	sector_agg	Other/Unclassified
H5 Detailed sector heterogeneity — Utilities	0.06	0.07	-0.07	0.20	notyettreated	g_espec	ETR	sector_agg	Utilities

Note. Notes: Sector groups are predetermined classifications. Sparse groups are skipped automatically.

**Figure S17.** Detailed sector heterogeneity in monitoring effects**Table S40.** Sector and regulation sample composition

Sector Agg	Regulated Group	Firm Years
Other/Unclassified	Unclassified	1743
Utilities	High regulation	252
Financial	High regulation	65

Note. Notes: Sector groups are constructed from available sector labels when present, or from setecon codes otherwise. Financial, utilities, and infrastructure are classified as high-regulation groups for the regulated-sector appendix.

Table S41. Sector-specific utilities and financial analyses

Robustness	Model	Att	Se	Lower	Upper	Control Group	Gvar	Yvar
Sector-specific CS estimator	Sector-specific - financial_only_ETR	0.14	0.12	-0.08	0.37	notyettreated	g_espec	ETR
Sector-specific CS estimator	Sector-specific - financial_only_TB	-0.08	0.03	-0.15	-0.02	notyettreated	g_espec	TB
Sector-specific CS estimator	Sector-specific - financial_only_AbnETR_Med	-0.09	0.05	-0.19	0.01	notyettreated	g_espec	AbnETR_Med
Sector-specific CS estimator	Sector-specific - financial_only_AbnTB_Med	-0.03	0.02	-0.07	0.00	notyettreated	g_espec	AbnTB_Med
Sector-specific CS estimator	Sector-specific - utilities_only_ETR	0.06	0.07	-0.08	0.20	notyettreated	g_espec	ETR
Sector-specific CS estimator	Sector-specific - utilities_only_TB	-0.05	0.10	-0.25	0.14	notyettreated	g_espec	TB
Sector-specific CS estimator	Sector-specific - utilities_only_AbnETR_Med	0.00	0.02	-0.05	0.04	notyettreated	g_espec	AbnETR_Med
Sector-specific CS estimator	Sector-specific - utilities_only_AbnTB_Med	-0.01	0.01	-0.03	0.00	notyettreated	g_espec	AbnTB_Med
Annual sector-specific CS estimator	Annual sector-specific - annual_utilities_only_ETR	0.08	0.07	-0.06	0.21	notyettreated	g_espec_annual	ETR
Annual sector-specific CS estimator	Annual sector-specific - annual_utilities_only_TB	-0.08	0.06	-0.19	0.04	notyettreated	g_espec_annual	TB
Annual sector-specific CS estimator	Annual sector-specific - annual_utilities_only_AbnETR_Med	-0.02	0.02	-0.06	0.01	notyettreated	g_espec_annual	AbnETR_Med
Annual sector-specific CS estimator	Annual sector-specific - annual_utilities_only_AbnTB_Med	-0.03	0.02	-0.06	0.00	notyettreated	g_espec_annual	AbnTB_Med

Note. Notes: Utilities and financial firms are estimated separately where support permits. These sector analyses are required robustness

Appendix H Additional heterogeneity dimensions

This appendix reports two additional pre-registered-style heterogeneity splits not carried in the main text: firm governance and tax-litigation risk.

Table S42. Governance and governance-by-tax-exposure heterogeneity

Model	Att	Se	Lower	Upper	Control Group	Gvar	Year	Split	Hypothesis	Dimension	Group
H6 Composite governance — Low governance	-0.10	0.07	-0.23	0.03	notyettreated	g,spec	ETR	Low governance	H6 Composite governance		
H6 Composite governance — High governance	-0.03	0.03	-0.09	0.03	notyettreated	g,spec	ETR	High governance	H6 Composite governance		
H8 Governance x tax exposure — High governance / high tax exposure	0.06	0.11	-0.15	0.27	notyettreated	g,spec	ETR			governance,tax_exposure	High governance / high tax exposure
H8 Governance x tax exposure — High governance / low tax exposure	-0.06	0.04	-0.13	0.01	notyettreated	g,spec	ETR			governance,tax_exposure	High governance / low tax exposure
H8 Governance x tax exposure — Low governance / low tax exposure	-0.11	0.09	-0.28	0.06	notyettreated	g,spec	ETR			governance,tax_exposure	Low governance / low tax exposure

Note. Notes: Governance groups use pre-treatment audit/governance proxies and interactions with pre-treatment tax exposure.

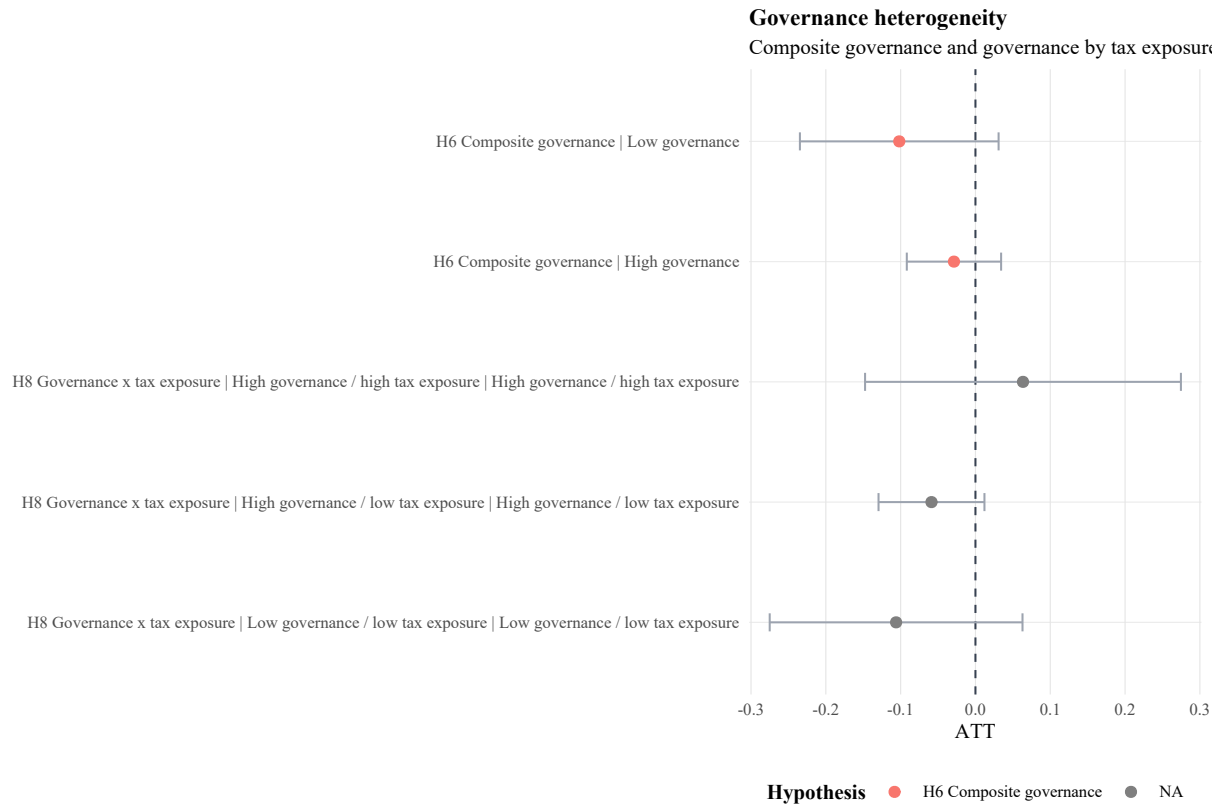


Figure S18. Governance and governance-by-tax-exposure heterogeneity

Table S43. Tax-litigation-risk and exposure-by-litigation heterogeneity

Note

No estimable result in this specification.

Note. Notes: Litigation-risk estimates use the first available litigation/provision proxy: No litigation/provision variable found.

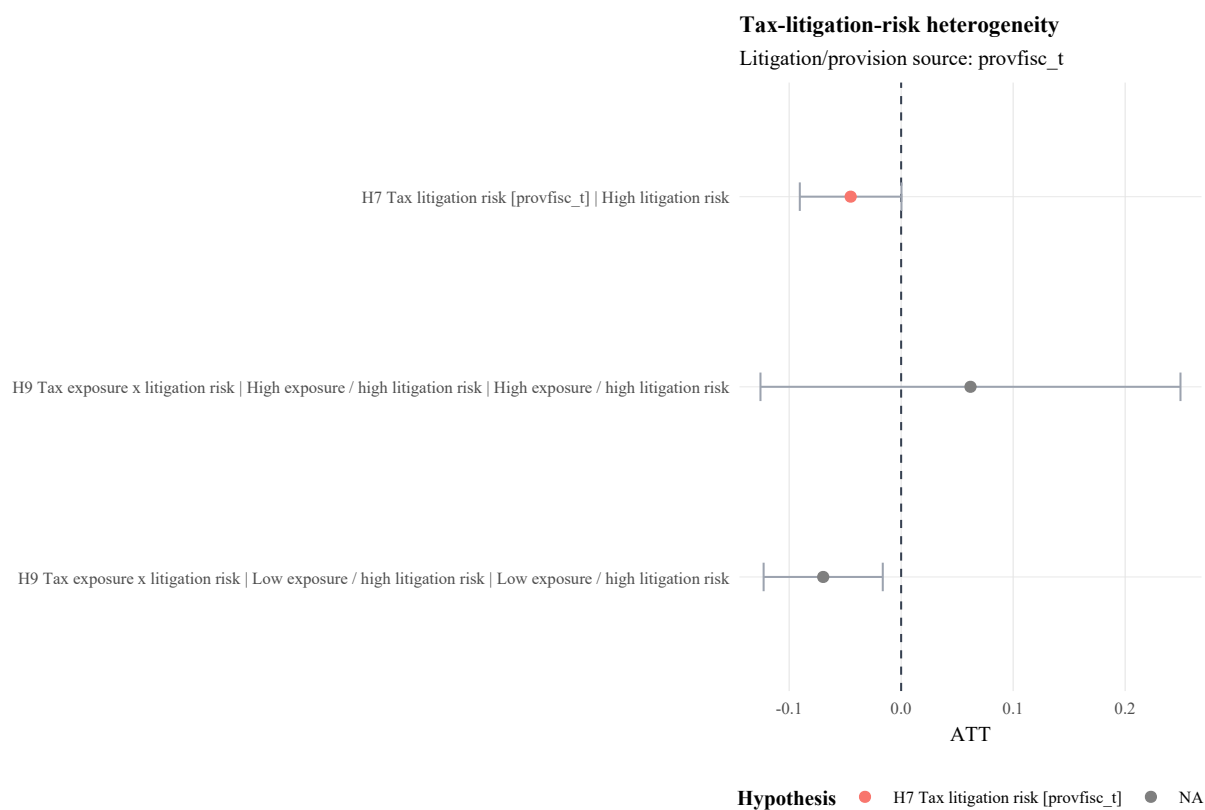


Figure S19. Tax-litigation-risk and exposure-by-litigation heterogeneity

Appendix I Sample construction and estimation diagnostics

This appendix reports additional detail on sample construction, cohort support, preprocessing weights, and audit trails for variable construction and estimation.

Table S44. Distribution of audit firm category

Auditor Cat	Firm Name	Firm Years	Pct
Others	Non-Big4 audit firms	518	24.90
DTT	Deloitte Touche Tohmatsu	299	14.40
EY	Ernst & Young (EY / EY Terco)	442	21.30
KPMG	KPMG Auditores Independentes	432	20.80
PWC	PricewaterhouseCoopers	387	18.60

Note. Notes: auditor_cat is a polychotomous variable derived from audBig, with Others as the reference category. The corrected binary Big Four indicator equals one only for DTT, EY, KPMG, and PWC.

Table S45. Cohort-specific monitoring effects on the effective tax rate

Model	Cohort	Yvar	Estimate	Std Error	Conf Interval	Control Group
H1 Special - ETR	17	ETR	-0.05**	(0.0224)	[-0.1002, 0.0075]	notyettreated
H1 Special - ETR	21	ETR	-0.07*	(0.0410)	[-0.1717, 0.0252]	notyettreated
H1 Special - ETR	25	ETR	-0.01	(0.0652)	[-0.1658, 0.1471]	notyettreated
H1 Special - ETR	29	ETR	0.02	(0.0832)	[-0.1838, 0.2159]	notyettreated
H1 Special - ETR	33	ETR	-0.05**	(0.0220)	[-0.1049, 0.0006]	notyettreated
H1 Special - ETR	37	ETR	0.09	(0.0536)	[-0.0419, 0.2155]	notyettreated
H1 Special - ETR	41	ETR	-0.01	(0.0363)	[-0.1003, 0.0738]	notyettreated
H1 Special - ETR	45	ETR	-0.05	(0.0485)	[-0.1623, 0.0708]	notyettreated

Note. Notes: This table reports group/cohort aggregations from the same Callaway-Sant’Anna ATT(g,t) object used for the main estimate. It shows which adoption cohorts identify the aggregate effect. Standard errors are in parentheses. *, **, and *** denote significance at the 10

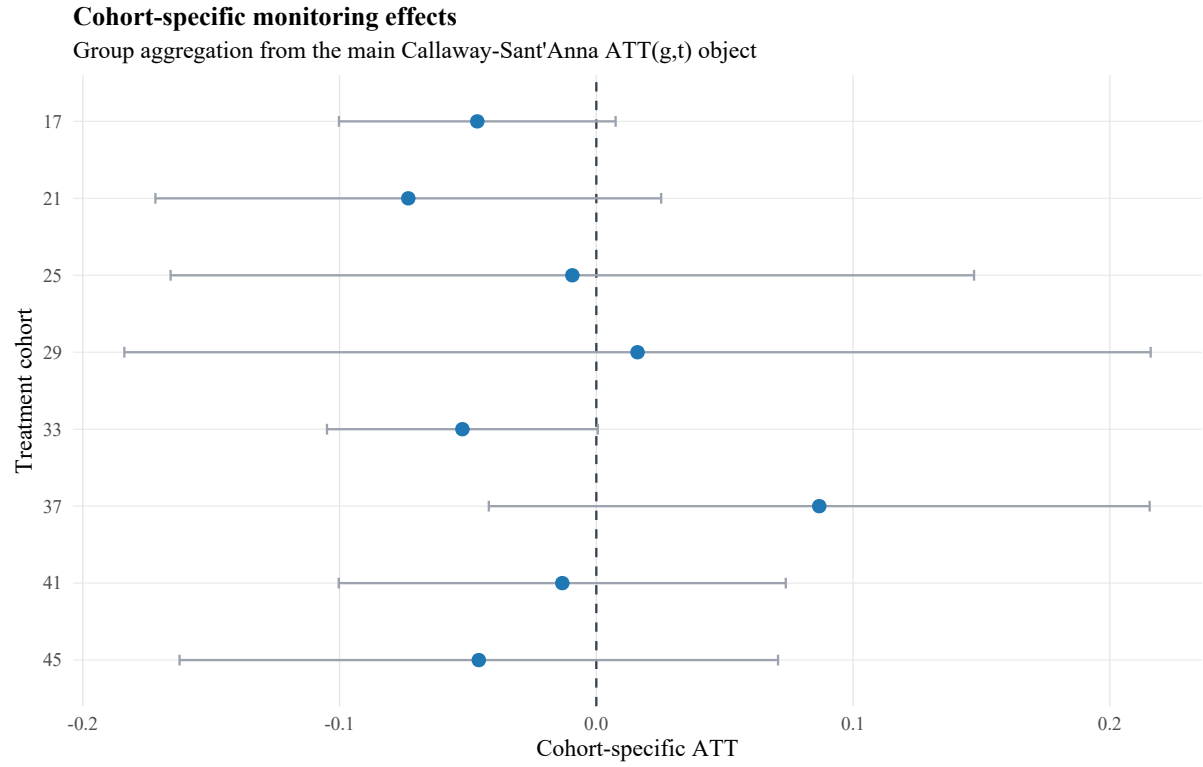


Figure S20. Cohort-specific monitoring effects on the effective tax rate

Table S46. Distribution of group-time ATT(g,t) estimates

Cells	Cohorts	Periods	Mean Att	Median Att	Sd Att	P25 Att	P75 Att	Min Att	Max Att
215.00	8	36	-0.02	-0.02	0.09	-0.06	0.03	-0.24	0.40

Note. Notes: Summary statistics are computed over the raw post-treatment group-time ATT(g,t) cells from the main H1 ETR specification. This table complements the aggregate ATT by revealing dispersion across cohorts and post-treatment periods.

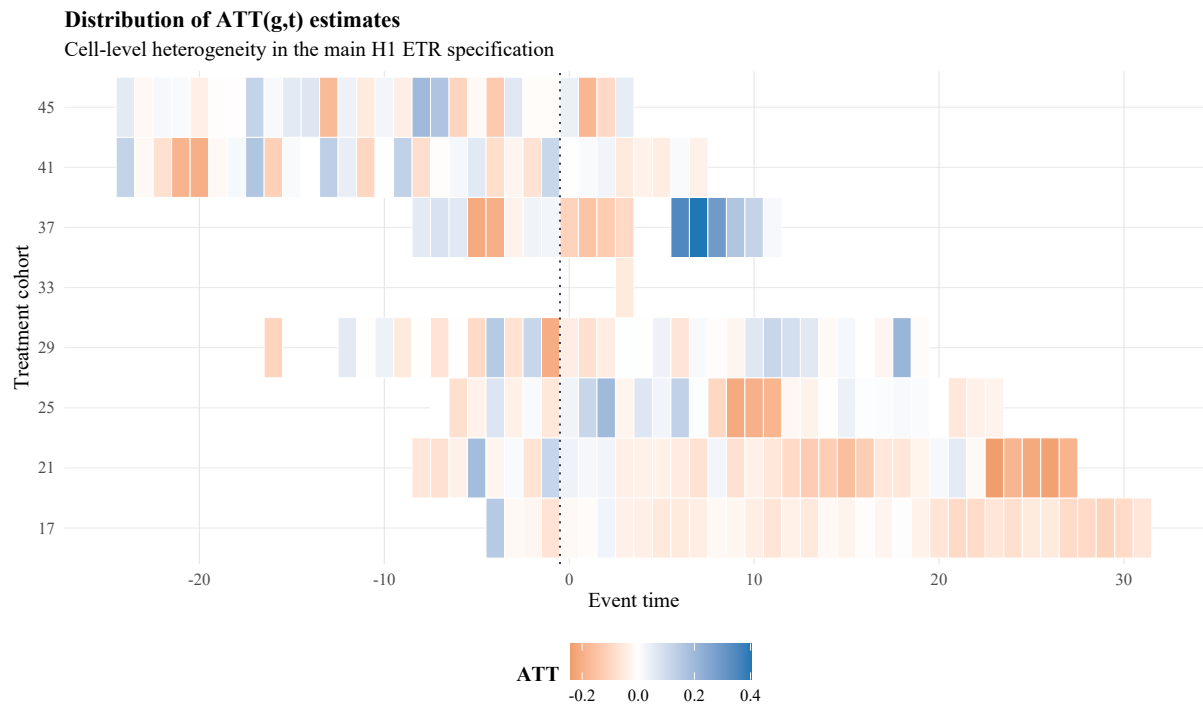


Figure S21. Distribution of group-time ATT(g,t) estimates in the main specification

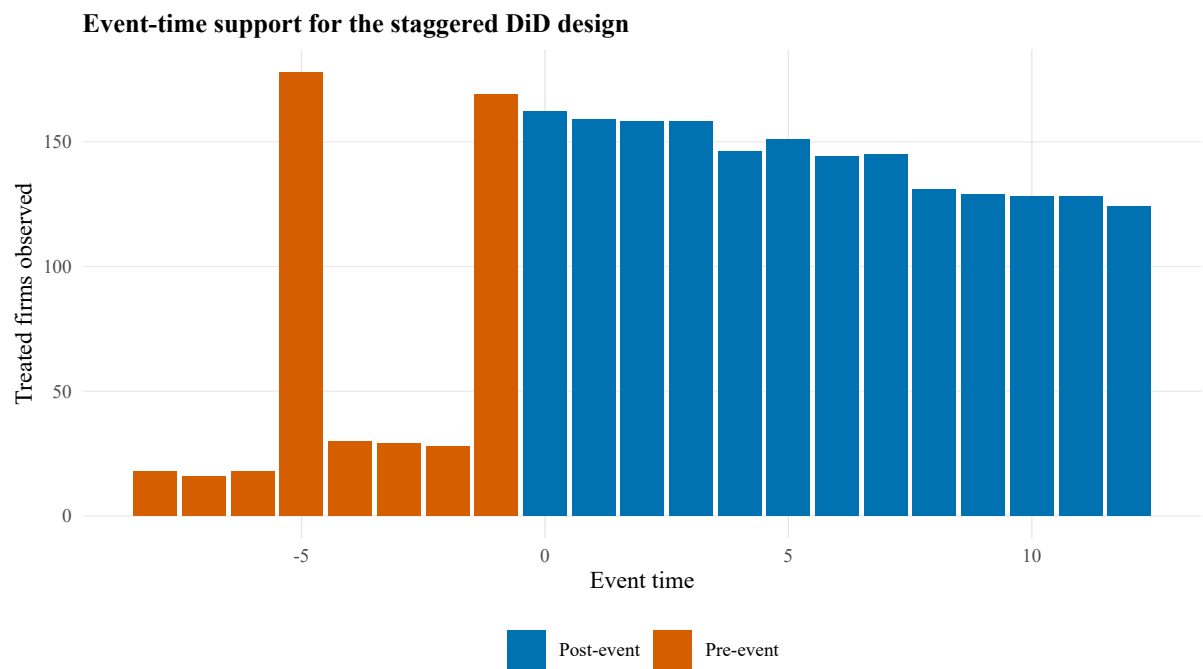


Figure S22. Event-time support for the staggered DiD design

Table S47. Distribution of preprocessing weights

Method	Obs.	mean	sd	min	p01	p25	median	p75	p99	max	Effective n
PSM	38.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	38.0000
Entropy balancing	311.0000	0.1222	0.2744	0.0000	0.0000	0.0000	0.0125	0.0650	1.0000	1.6170	51.5959

Notes: Extreme preprocessing weights can indicate limited overlap even when SMD balance is good. Effective N is computed as $(\sum w)^2 / \sum(w^2)$.

Table S48. Variable-construction and methodological audit trail

Construct	Code Location	Procedure	Literature Basis	Status
Annual replication	Section 9 and Section 13	Firm-year panel with unchanged treatment timing and annual cohorts for all main outcomes	Callaway and Sant’Anna (2021, Journal of Econometrics); Baker et al. practitioner guidance	Implemented for all main outcomes, annual event studies, annual heterogeneity, and quarterly-vs-annual comparison
Regulated sectors	Section 13	Full sample, financial-only, utilities-only, high-regulation splits, and annual counterparts	Industry heterogeneity as pre-determined sample partition; avoid post-treatment conditioning	Implemented when sector identifiers are available
Pre-treatment heterogeneity	Sections 6, 10, and 13	Heterogeneity variables use pre-treatment medians, indicators, or predetermined classifications	Callaway and Sant’Anna (2021); Borusyak, Jaravel, and Spiess (2024)	Implemented for fiscal pressure, compliance/auditor proxy, tax exposure, regulation, governance, litigation risk, and interactions
Tax exposure	Section 6	PET index from pre-treatment imob, rb_2, and lair using PCA fallback	Factor/index construction with validation diagnostics	Implemented
Missing data	Section 13	Variable-year-sector-treatment missingness diagnostics before imputation decisions	Little and Rubin style missing-data audit; imputation only with documented assumptions	Diagnostics implemented; imputation should remain variable-specific
Publication style	Section 14	Centralized table writer, figure theme, manuscript font, significance, and confidence intervals	Top-tier journal table/figure conventions	Implemented

Note. This table maps each implemented procedure to its code location, rationale, and status.

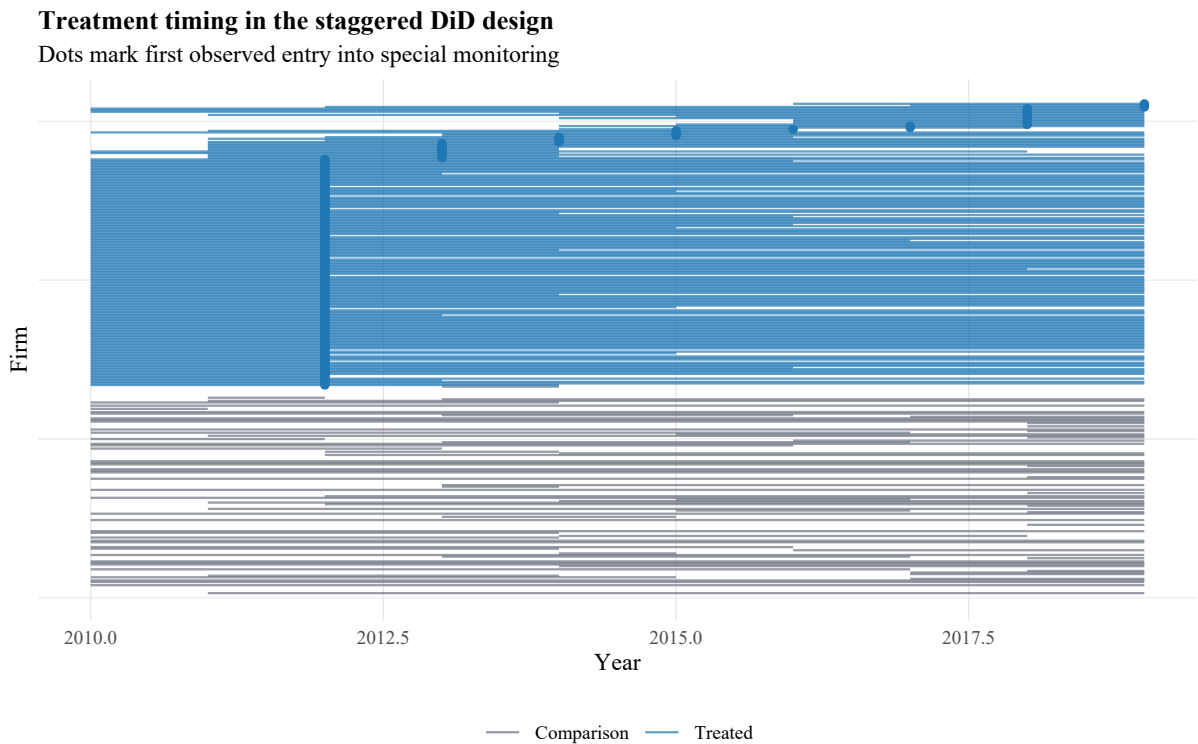


Figure S23. Treatment timing in the staggered DiD design

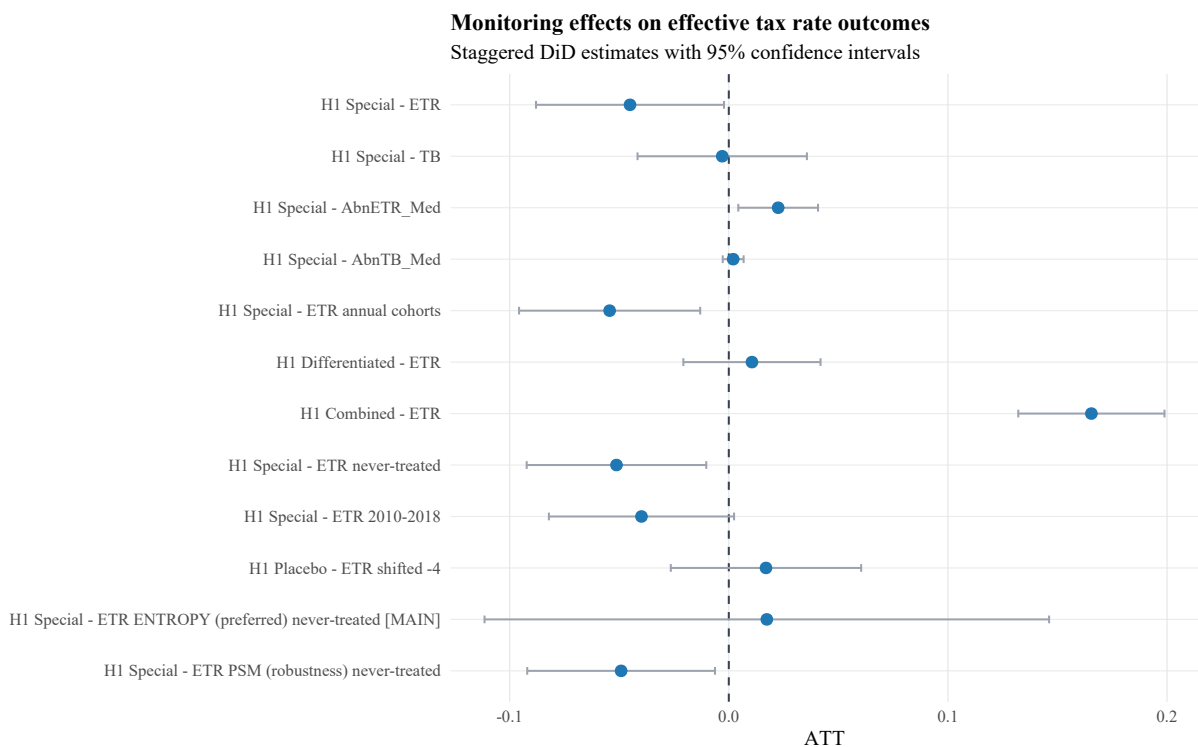


Figure S24. Main and robustness staggered DiD estimates

Missing-data diagnostics. The variable-by-year-by-sector-by-treatment-status missingness audit (governance index, high-governance indicator, litigation-risk proxies, tax exposure, fiscal pressure, ETR, and TB; 972 cells) finds **0% missingness in every cell**: none of the diagnostic

variables used in the heterogeneity analyses has any missing observations in the final analysis sample. A bar chart of this diagnostic is therefore omitted, since every bar would have zero height; the underlying cell-level counts are available on request.