
Stock Exchanges as Governance Institutions

Evidence from the Tokyo Stock Exchange

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Two roles of a stock exchange

1. Liquidity infrastructure

Trading venue that enables price discovery and lowers the cost of capital. *Heavily studied.*

2. Governance institution

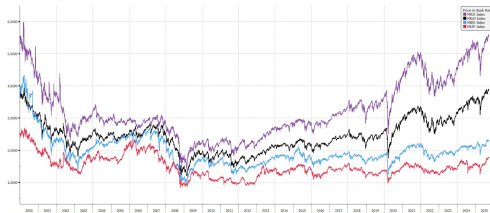
Listing rules, disclosure requirements, monitoring that shape corporate behavior. *Underappreciated.*

- Exchanges are usually viewed as **neutral market operators**, not active agents shaping firm conduct.
- As a result, we know little about whether and how **exchange-initiated governance** affects firm behavior and valuation.

Takeaway: We study a rare case where a major exchange *actively* intervened in firm governance.

The setting: Japan's persistent valuation discount

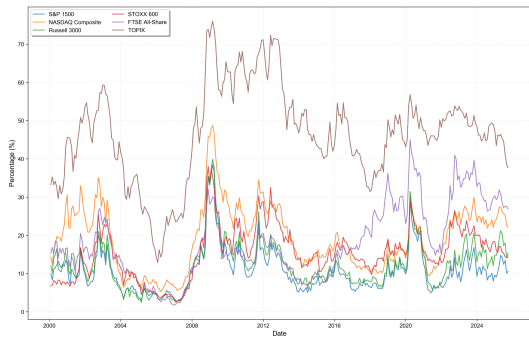
- Since the 1990s bubble collapse, many Japanese firms trade **below book value** ($P/B < 1$).
- Roughly **half** of TSE-listed firms persistently trade under book value.
- Reflects low capital efficiency, modest ROE ($\sim 8\text{--}9\%$), large cash holdings ($\sim 17\%$ of market cap vs. $\sim 5\%$ in the U.S.), cross-shareholdings, and stakeholder-oriented management.



Average P/B ratios across major economies,
2000–2025.

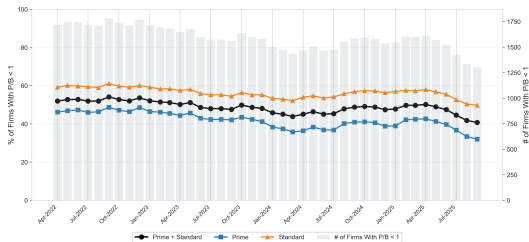
Takeaway: Japan is a global outlier in chronic undervaluation — a structural, decades-old problem.

Low valuations are widespread — and not unique to Japan



Share of index constituents with $P/B < 1$.

- TOPIX: often **>50%** of constituents below book; S&P 1500 only $\sim 10\%$; other DM indices $\sim 20\text{--}30\%$.
- Understanding exchange-led valuation initiatives matters **beyond Japan**.



Share of TSE-listed firms with $P/B < 1$, 2022–2025.

The intervention: the TSE's CCSP request (March 31, 2023)

“Action to Implement Management that is Conscious of Cost of Capital and Stock Price”

- TSE **requested** (not mandated) all Prime and Standard firms to disclose concrete plans to improve capital efficiency and corporate value.
- Explicitly highlighted firms trading **below book value** ($P/B < 1$).
- Three action items: **(1)** analyze current situation → **(2)** plan & disclose → **(3)** implement & update annually.

What makes this a clean laboratory

A **soft, non-binding** disclosure intervention, **initiated by the exchange itself**, with a **salient $P/B = 1$ threshold** that the press and investors latched onto.

Research questions

- ① **Disclosure.** How do firms adjust disclosure in response to a non-binding request that singles out low-P/B firms?
- ② **Valuation.** Does CCSP disclosure raise firm value — credible commitment, or backfiring signal?
- ③ **Real effects.** Does it change profitability and capital allocation (ROE, cash, dividends, buybacks)? How does this differ across firms?

Takeaway: Can an exchange shape corporate behavior through *moral suasion* rather than enforcement?

Preview of findings

DiD — average effect of disclosing

- Short-run rise in P/B and P/S (~4 months).
- Higher ROE, dividends, buybacks; lower cash.
- Stronger & more persistent for **high-valuation** and **Prime** firms.

RD — local effect at the $P/B = 1$ cutoff

- Targeted firms (just below) were *less* likely to disclose — contrary to intent.
- Marginal disclosers (just above) subsequently traded at *lower* P/B.
- Negative valuation effect concentrated in **Standard** market.

Takeaway: Soft, exchange-led governance can work *on average*, yet *depress valuations* for firms induced to comply at the margin.

- **Disclosure without enforcement.** Prior work stresses public/private enforcement as key (Daske et al. 2008; Christensen et al. 2013). We show a *soft* request, well designed and framed, can still move valuations — but with highly heterogeneous effects.
- **Exchanges as governance institutions.** Literature emphasizes *investors* and *regulators*; evidence on exchanges themselves is scarce (Bonetti 2023; Bourveau et al. 2025). We show an exchange's active intervention can shape governance.
- **Japan's capital-market reforms.** Beyond market reactions (Morikawa 2024; Okada; D'Acunto 2025), we provide *causal* evidence on fundamentals and financial policy.

Data & Empirical Strategy

Sources

- **NEEDS FinancialQUEST** (Nikkei): valuation multiples & fundamentals, near-universal coverage.
- **TSE disclosure list**: firms making CCSP disclosures, monthly — available only from **Dec 2023**.

Sample

- Dec 2023 – Sep 2025 (22 months).
- Exclude financials/utilities, negative book equity, recent IPOs; drop 24 “switchers.”
- **1,467 Prime** + **1,490 Standard** firms.
- ~31.7k firm-months each segment.

Sample averages

$P/B \approx 1.6$ · $P/E \approx 22.7$ · Div. yield $\approx 2.4\%$ · $ROE \approx 7.4\%$ · Cash $\approx 23\%$ of assets ·
Payout $\approx 41\%$

Two complementary identification strategies

1. Difference-in-Differences

Staggered timing of *when* firms comply. **Event study** of disclosure on fundamentals & policy. *Estimand*: ATT — average effect on disclosing firms.

2. Regression Discontinuity

Exploits the salient $P/B = 1$ cutoff (running variable: P/B in March 2023). **Fuzzy RD**: emphasis $\rightarrow$ disclosure $\rightarrow$ outcomes. *Estimand*: LATE — local effect on marginal compliers.

- DiD gives the **average** story; RD gives a **sharp local** causal story at the policy-relevant margin.
- Together: both the average and local effects of a soft, norm-based intervention.

Difference-in-Differences design

Event-study specification with staggered treatment:

$$y_{i,t} = \sum_{k \in W} \beta_k D_{i,t-k} + \alpha_i + \tau_t + X'_{i,t} \gamma + \varepsilon_{i,t}, \quad W = \{-6, \dots, 10\}$$

- $D_{i,t}$: firm i discloses in month t ; α_i firm FE, τ_t time FE, $X_{i,t}$ controls.
- Identifying assumption: **parallel trends** — supported by flat pre-trends.
- TWFE-OLS is biased under heterogeneous, staggered timing $\Rightarrow$ use modern estimators.
- **Baseline:** de Chaisemartin & D'Haultfœuille (2023), *not-yet-treated* controls.
- **Robustness:** Sun & Abraham; Callaway & Sant'Anna; Borusyak et al.; never-treated controls.

First stage — effect of being an emphasized target on disclosure (by year-month):

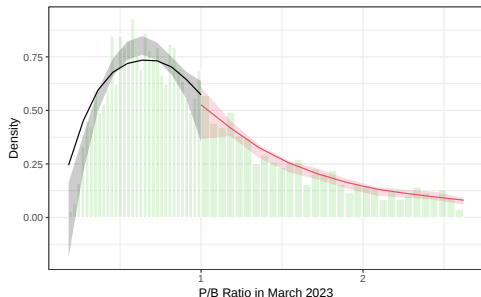
$$D_{i,t} = \beta_0 + \gamma \mathbb{1}\{\text{PBR}_{i,2023/03} \geq 1\} + f_L(\cdot) + f_R(\cdot) \times \mathbb{1}\{\text{PBR} \geq 1\} + \varepsilon_{i,t}$$

Second stage — fuzzy RD effect of disclosure on outcomes (2SLS, pooled):

$$Y_{i,t} = \alpha + \rho \hat{D}_{i,t} + g_L(\cdot) + g_R(\cdot) \times \mathbb{1}\{\text{PBR} \geq 1\} + \delta_t + \eta_{i,t}$$

- Local-linear, MSE-optimal bandwidths; bias-corrected robust inference (Calonico, Cattaneo & Titiunik 2014).
- P/B is mechanically priced $\Rightarrow$ little scope for manipulation; request was hard to anticipate.

No manipulation around the cutoff

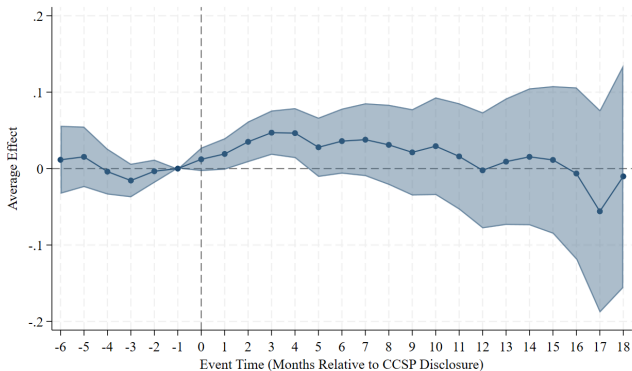


- Density test (Cattaneo, Jansson & Ma 2020): robust $T \approx 0$, $p \approx 0.9$.
- No bunching just above/below $P/B = 1$.
- Binomial exact tests agree — no evidence of sorting.

Takeaway: The $P/B = 1$ running variable is clean; the no-manipulation assumption is plausible.

Results I — Difference-in-Differences

DiD: dynamic effects of CCSP disclosure

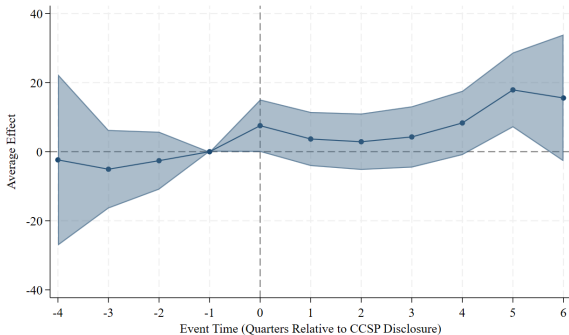


- Flat **pre-trends** $\Rightarrow$ parallel-trends support.
- P/B rises by ~ 0.05 over the first **4 months**, then fades.
- P/S shows a parallel ~ 0.03 short-run bump.

P/B ratio, de Chaisemartin–D’Haultfœuille estimator.

Takeaway: Disclosure delivers a *modest, short-lived* valuation gain on average.

DiD: fundamentals and financial policy respond

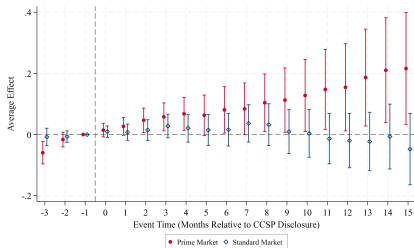


- **Buybacks** (shown): $\sim +20\%$ by Q5 — large & significant.
- **Dividends**: payout $\sim +5$ pp by month 9.
- **ROE**: $\sim +2$ pp at ~ 6 quarters (marginal).
- **Cash**: $\sim -5\%$ of assets — reallocated to payouts/investment.

Share repurchases (treasury-stock growth), quarterly.

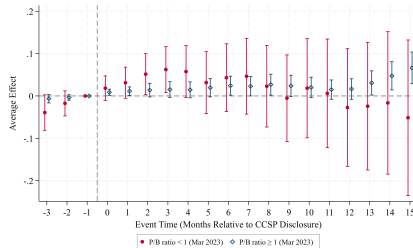
Takeaway: Real, shareholder-friendly reallocation — robust to firm-fundamental controls.

DiD heterogeneity: who responds?



By market segment: Prime vs. Standard.

- Effects concentrated in **Prime** and **high-valuation** firms — larger and more persistent.
- **Standard** and **low-P/B** firms: small, noisy, short-lived (sometimes turning negative).

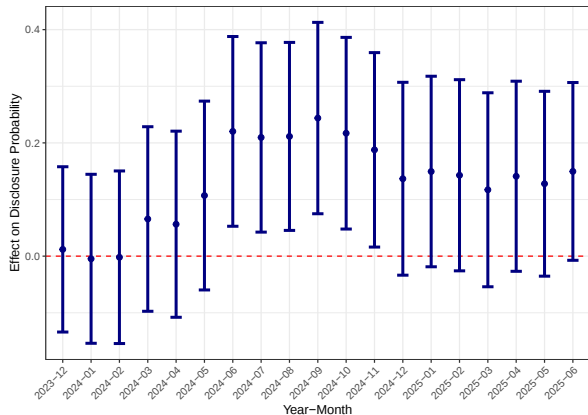


By valuation: P/B < 1 vs. ≥ 1 in March 2023.

Takeaway: The request worked best where firms were *already* viewed favorably — not where reform was most needed.

Results II — Regression Discontinuity

RD first stage: the targeting backfired



RD effect of crossing $P/B = 1$ on disclosure probability, by month.

Takeaway: Stigma, disclosure costs, and strategic risk made *targeted* firms slower to comply.

- Firms just **above** the cutoff were *more* likely to disclose — up to **+25 pp** in mid/late 2024.
- Yet the TSE *emphasized* firms **below** the cutoff.
- Effect fades by early 2025 as low-P/B firms catch up.

RD second stage: marginal disclosers were re-priced *down*

	P/B	P/S	P/E	Yield	Spread	Volume/sh	Return
Effect of disclosure	−0.811*** (0.181)	−0.333 (0.264)	−38.81 (24.99)	5.875*** (1.718)	−0.017*** (0.003)	−0.033 (0.051)	−0.027** (0.012)
First stage	0.109***	0.110***	0.093***	0.109***	0.109***	0.117***	0.168***

Pooled fuzzy RD, full sample. Robust bias-corrected SEs clustered by firm. * $p < .10$, ** $p < .05$, *** $p < .01$.

- **P/B falls by 0.81**; dividend yield rises; bid–ask spread **narrows** (−0.017); returns decline.
- Pattern $\Rightarrow$ **information revelation**: disclosure made constraints transparent, prompting downward revisions *with* better liquidity.

RD by segment: the markdown is a Standard-market story

	P/B	P/S	P/E	Yield	Spread	Return
Prime	0.069	−1.588***	−1.18	2.278***	−0.009***	−0.009***
Standard	−2.292***	0.517	−155.9**	4.031***	−0.032***	−0.019***

Pooled fuzzy RD by market segment. Robust bias-corrected SEs clustered by firm.

Prime

- P/B essentially unchanged.
- Mostly *liquidity*: tighter spreads, higher volume.

Standard

- Sharp **P/B and P/E declines**.
- Stronger repricing where governance/scrutiny is weaker.

Takeaway: Greater *disciplining/informational* bite in the less-prestigious Standard market.

Interpretation & Conclusion

Reconciling DiD (+) and RD (-): different estimands

DiD = ATT

$$ATT = E[Y_{it}(1) - Y_{it}(0) \mid D_{it} = 1]$$

Average over *all* firms that chose to disclose — many high-quality, voluntary signalers.

RD = LATE

$$LATE = E[Y_{it}(1) - Y_{it}(0) \mid \text{compliers, } PBR \simeq 1]$$

Local to *marginal* compliers at the cutoff — disclosure induced, more opportunistic.

- Voluntary disclosers credibly commit $\Rightarrow$ valuations rise on average ($ATT > 0$).
- Marginal, induced disclosers reveal weaker fundamentals $\Rightarrow$ markets mark them down ($LATE < 0$).

Takeaway: No contradiction — the *margin* of compliance, not the sign of the policy, drives the difference.

Conclusion

- A **soft, non-binding** exchange request *can* work: on average, disclosers saw higher valuations, ROE, dividends, and buybacks, and lower cash — **without formal enforcement**.
- But the effects are **deeply heterogeneous**:
 - Strongest for **high-valuation / Prime** firms already favored by investors.
 - **Targeted low-P/B firms** were initially *less* likely to disclose.
 - **Marginal** disclosers were *re-priced down* — disclosure revealed weakness rather than correcting it.
- Strategic firm responses can **dilute the targeting** a soft initiative is meant to achieve.

Bottom line

Exchanges can act as governance institutions through **moral suasion and visibility** — but moral suasion has its limits precisely among the firms most in need of reform.

Thank you

Comments welcome
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