

(In)frequently Traded Corporate Bonds

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Paper in a nutshell

This paper is about bonds that move from **active trading to inactive trading and back**, we call them (in)frequently traded. They are many: **25%** of corporate bonds are (I)TBs.

Key findings:

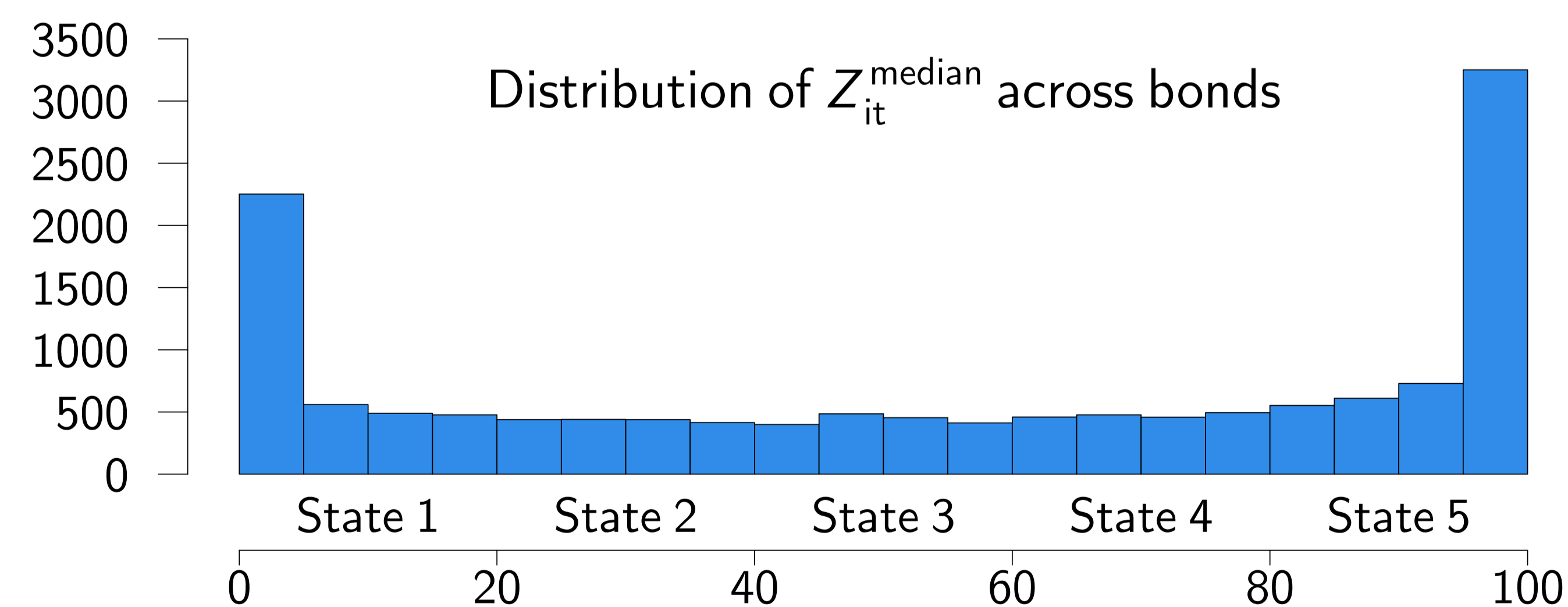
- ▶ (I)TBs are **similar** to Non-(I)TBs in regular bond characteristics: size, rating, maturity etc.;
- ▶ Spikes in (I)TB trading are **not related to public news** about issuers but are correlated with increases in **mutual fund demand** and higher volumes in **small trades**;
- ▶ More active (I)TB trading yields **positive abnormal returns** but only **post the 2008 crisis**;
- ▶ We think (I)TB abnormal returns are due to **profit-taking by hedge funds**. They sell (I)TBs to mutual funds in small volumes through inventory-averse dealers.

Data and measurement

OTC trades from Enhanced TRACE + bond characteristics from Mergent FISD + scraped mutual fund holdings from SEC N-Q forms + insurance companies trading from NAIC.

Trading frequency measure for bond i in month t :

$$Z_{it} = \% \text{ of business days without trades.}$$



- ▶ Bonds **do move** across 5 trading frequency states defined by the equal split of the domain of Z ;
- ▶ Of ~14k bonds in sample ~4k are (I)TBs: they travelled **from state 1 to states 3/4/5 and back** to state 1; $\frac{2}{3}$ of them more than once, more post- than pre-crisis.

Why (I)TBs are different

Mean ratio of **retail-size to institutional-size volume** in (I)TBs is **1.2x–1.8x higher** depending on trading frequency state. It takes **more days** to trade the same additional volume in small trades in (I)TBs than in Non-(I)TBs.

	(I)TB		Non-(I)TB	
	Pre-crisis	Post-crisis	Pre-crisis	Post-crisis
$\Delta(\text{Client sell volume in big trades})_{it}$	-0.24***	-0.21***	-0.24***	-0.24***
$\Delta(\text{Client sell volume in small trades})_{it}$	-11.14***	-5.05***	-11.60***	-3.06***
$\Delta(\text{Client buy volume in big trades})_{it}$	-0.28***	-0.29***	-0.48***	-0.33***
$\Delta(\text{Client buy volume in small trades})_{it}$	-13.09***	-6.66***	-7.86***	-3.76***
$\Delta(\text{Inter-dealer volume in big trades})_{it}$	-0.22***	-0.19***	-0.15***	-0.14***
$\Delta(\text{Inter-dealer volume in small trades})_{it}$	-6.23***	-1.95***	-7.42***	-2.57***
Adjusted R ²	0.14	0.11	0.11	0.08

Note: *p<0.1; **p<0.05; ***p<0.01

Table: **Regression of ΔZ_{it} on changes in volume by type and size**, p.p. of the outstanding amount. Includes bond and month FE. Standard errors are clustered by bond CUSIP. Small trades are < 100k USD.

Mean ratio of **mutual funds (I)TB** to Non-(I)TB holdings is **1.05–1.50** depending on trading frequency state. No. of funds invested in an (I)TB does not change much with the state.

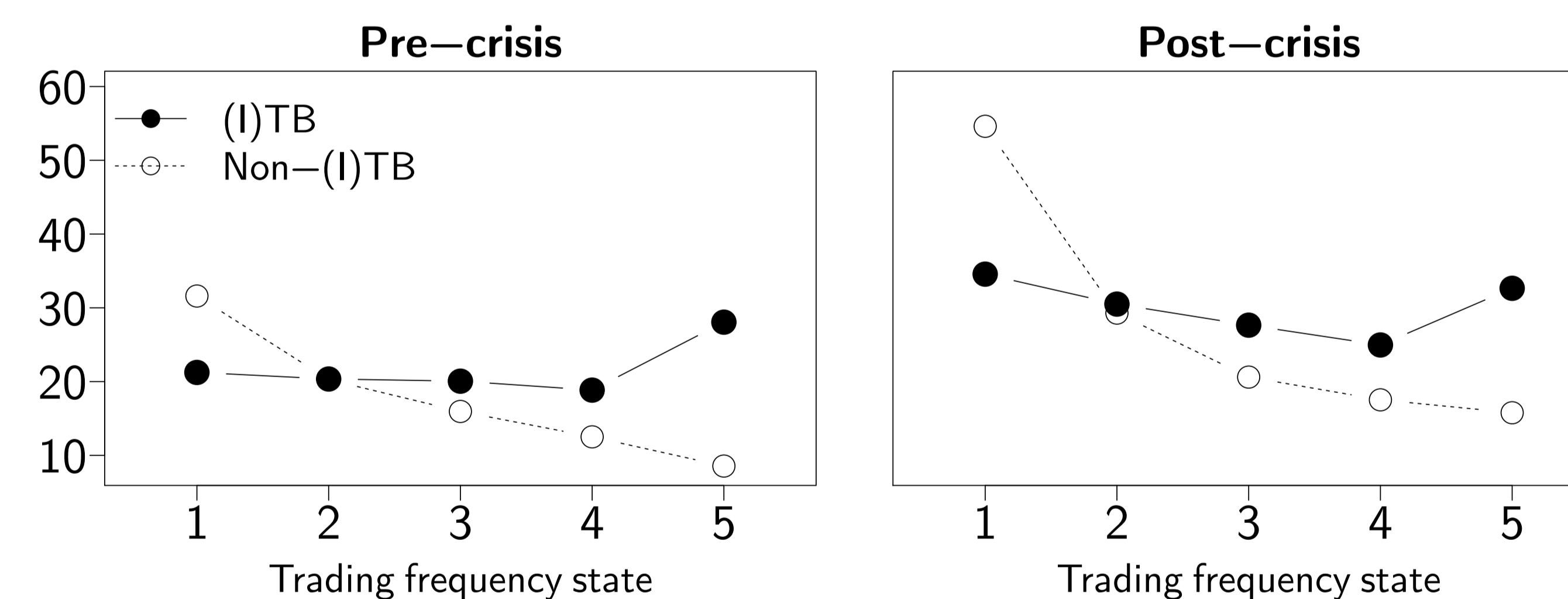


Figure: **Mean number of mutual funds invested in a bond.**

In addition, we find that:

- ▶ (I)TBs are **more liquid** in infrequent trading states than Non-(I)TBs as measured by [Bao et al. \(2011\)](#) measure; possibly due to **lower information asymmetry** because of dispersed fund ownership;
- ▶ More frequent trading in (I)TBs occurs simultaneously with increases in **mutual fund net demand** and larger volume in **small sell trades**.

Corporate news are irrelevant

Trading frequencies change asynchronously for different bonds of the same issuer.

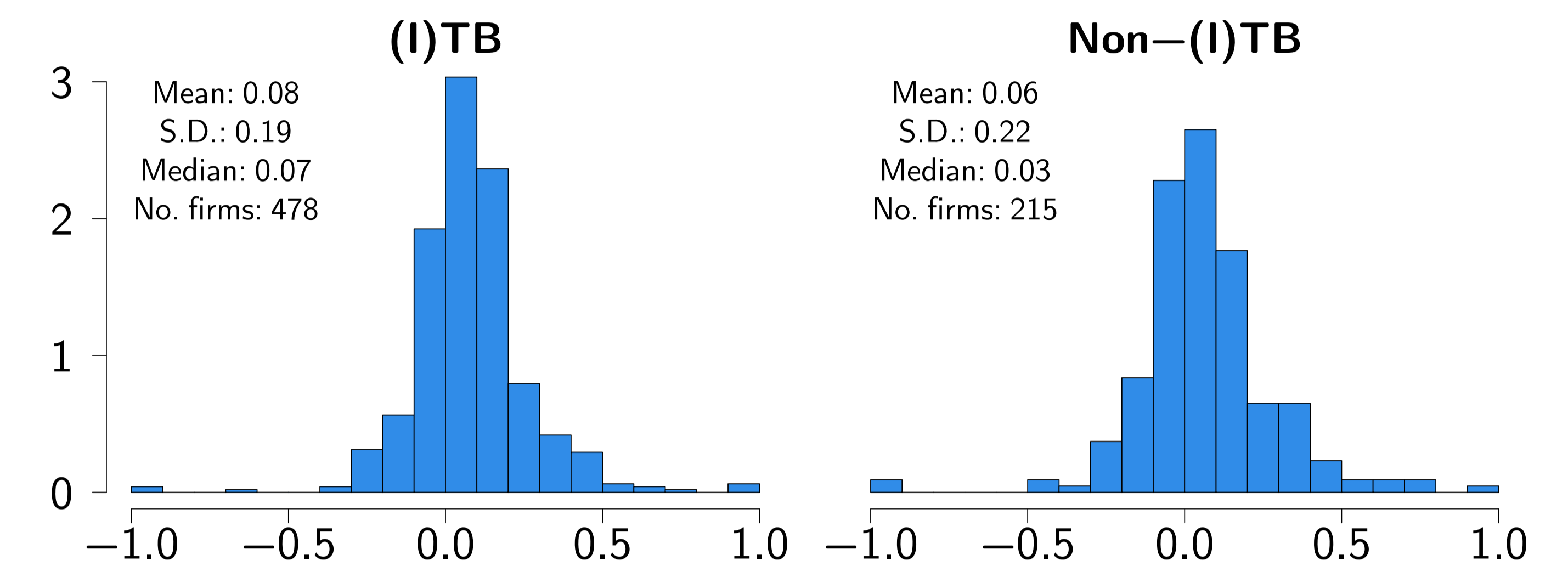


Figure: **Cross-firm distribution of median pairwise correlation in ΔZ** between different bonds of the same firm.

We show in many ways that time-varying **firm-level and bond-level factors** (e.g., new bond issuance and credit rating changes) **explain only 5%** of variation in ΔZ_{it} .

Returns and trading frequency jumps

More trading = **12 b.p.** positive excess return, for (I)TB only.

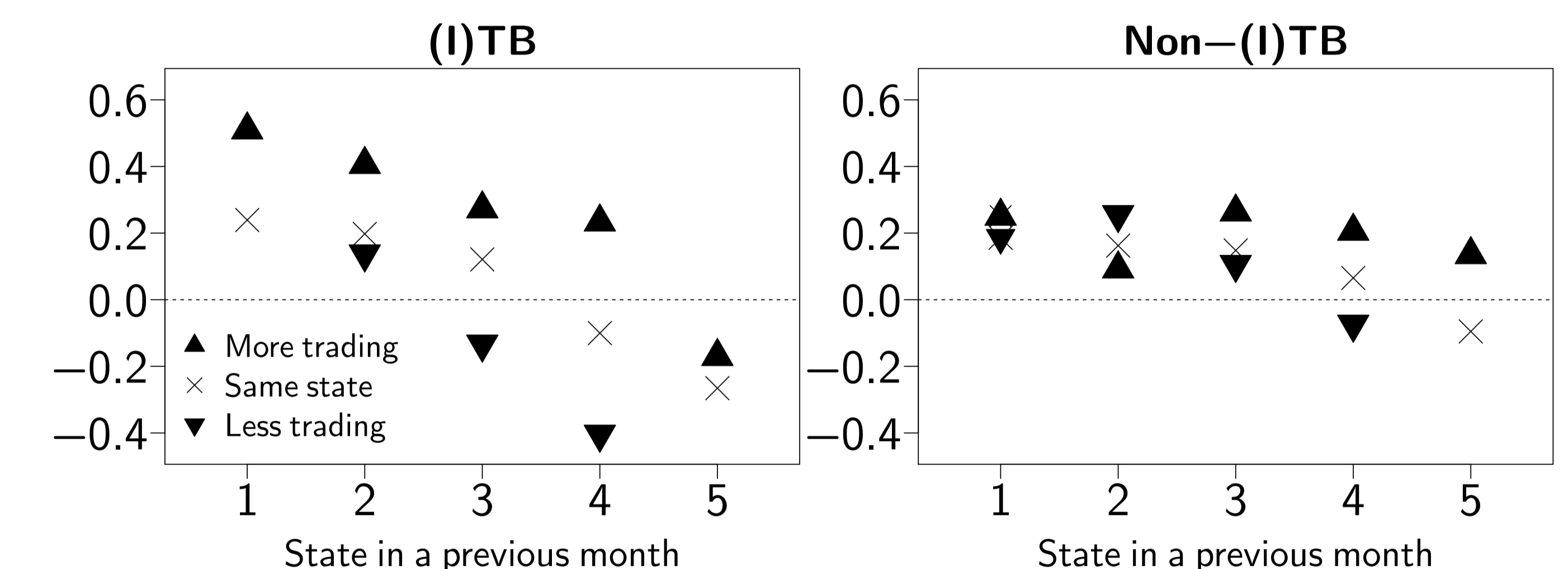


Figure: **Average excess returns and jumps across trading frequency states, % per month.**

- ▶ The effect **appears only post-crisis**, it is not subsumed by institutional flows and the exposure to [Bai et al. \(2018\)](#) risk factors;

We believe the return effect is due to a combination of:

- ▶ (I)TBs being in high **demand from mutual funds**;
- ▶ Post-crisis **profit-taking by hedge funds**, they supply (I)TBs and trade in small trades;
- ▶ Strong bond **inventory aversion** among dealers post-crisis.

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