

Municipal Bond Smithereening

Institutional-to-Retail Distribution and Markups

Casey Dougal
Florida State University

Daniel A. Rettl
University of Georgia

Rich Ryffel
Purdue University

Vasiliy Yakimenko
University of Georgia

15th Annual Municipal Finance Conference

Retail ownership vs. retail access

Ultimate holders

49%

Retail holds 49% of municipal bonds directly

Primary market

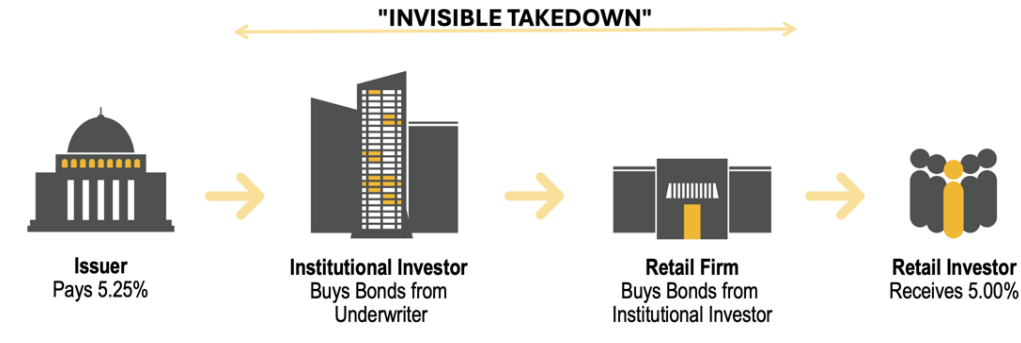
4%

Retail buys only 4% of municipal bonds in the primary market

Retail-linked investors ultimately hold a large share of munis, while retail-sized demand is mostly filled through secondary-market intermediation.

Sources: Fed Financial Accounts; MSRB. Denominators differ, and trade size is an imperfect proxy for retail investors.

Smithereening: Bond Migration to Retail



- ▶ Bonds are not always “well-placed” during initial sale.
- ▶ Significant unfilled retail demand exists at initial pricing.
- ▶ Retail demand is later filled in the secondary market.
- ▶ Issuer does not capture benefit of retail demand.
- ▶ “Invisible Takedown” often disguised as OID.

An Example: Peace River Bonds

CUSIP:	704612HP8
Coupon:	5%
Maturity Date:	10/1/55
Dated Date:	8/12/25
Initial Offering Price (%):	97.71
Initial Offering Yield (%):	5.15
Principal Amount:	\$16,220,000

- ▶ 20 interdealer/dealer-sale trade pairs with identical par and timestamp on the first 2 trading days after initial placement.
- ▶ We call the dealer sale in these pairs a **Smith Trade**.
- ▶ **Smith Bond**: bonds with at least one Smith Trade.

Original Institutional Investor



Trade Date/Time	Price	Trade Amount (\$)	Trade Type	Markup Rel. to Offer Price (%)
7/23/25 12:00	97.71	1,000,000	Customer bought	0.00%
7/23/25 12:00	97.71	15,220,000	Customer bought	0.00%

Smithereening

Trade Date/Time	Price	Trade Amount (\$)	Trade Type	Markup Rel. to Offer Price (%)
7/24/25 16:17	99	50,000	Inter-dealer trade	1.32%
7/24/25 16:17	100	50,000	Customer bought	2.34%
7/24/25 15:50	99	20,000	Inter-dealer trade	1.32%
7/24/25 15:50	100	20,000	Customer bought	2.34%
7/24/25 15:44	99	200,000	Inter-dealer trade	1.32%
7/24/25 15:44	100	200,000	Customer bought	2.34%
7/24/25 15:19	99	50,000	Inter-dealer trade	1.32%
7/24/25 15:19	100	50,000	Customer bought	2.34%
7/24/25 15:12	99	250,000	Inter-dealer trade	1.32%
7/24/25 15:12	100	250,000	Customer bought	2.34%
7/24/25 15:11	99	250,000	Inter-dealer trade	1.32%
7/24/25 15:11	100	250,000	Customer bought	2.34%
7/24/25 15:11	99	250,000	Inter-dealer trade	1.32%
7/24/25 15:11	100	250,000	Customer bought	2.34%

Data and empirical design

- ▶ Data: MSRB transaction records, 2014–2018.
- ▶ Observe customer and interdealer trades, prices, yields, and par amounts.
- ▶ Sample: customer purchases in the first 60 days after the offering date.
- ▶ Design: compare customer markups for Smith Bonds versus other bonds in the early aftermarket.

Smith Trade

A customer sale that exactly matches an interdealer trade in CUSIP, timestamp, and par amount.

Smith Bond

A bond with at least one Smith Trade in the issuance window.

Offer Markup

Difference between the customer's purchase price (or yield) and the bond's original reoffering terms.

Question: Do Smith Bonds carry higher customer markups in the early aftermarket?

Retail trades are hard to identify in trade data

What EMMA/MSRB trade data show

- ▶ Customer vs. interdealer trade indicator
- ▶ Price, yield, par amount, and timestamp
- ▶ Old convention: $\leq \$100,000$ trades are *individual investor-sized*

What the data do not show

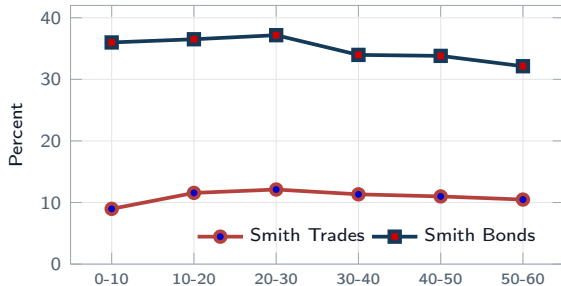
- ▶ The ultimate investor identity
- ▶ Whether a customer trade is an individual, adviser/SMA, or fund
- ▶ Whether advisers execute blocks later allocated to individual accounts

MSRB research explicitly cautions that trade size is only a proxy. The rise of SMAs, mutual funds, and ETFs can shift individual demand into larger customer trades, making “retail” hard to observe directly.

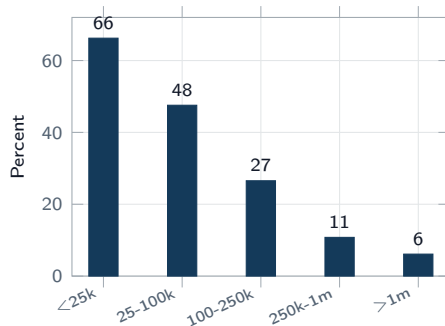
Sources: MSRB, *Municipal Securities Market Sees Noticeable Shift in Buying Patterns* (2021); MSRB, *Analysis of Primary vs. Recently Issued and Competitive vs. Negotiated Municipal Securities Markets* (2024).

Table 2: Smithereening is common and retail-oriented

Timing after issuance



Share of trades occurring in Smith Bonds



By days 20-30, 12.1% of customer trades and 37.2% of traded bonds are smithereened; exposure falls sharply as ticket size rises.

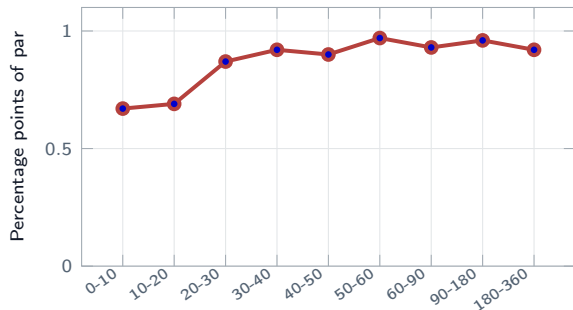
Smithereening Is More Prevalent in Retail-Facing Issues

Comparison	% Smith Trades	% Smith Bonds
Discount bonds	30.9	60.3
Premium bonds	9.0	33.4
Long-dated bonds	15.7	56.3
Short-dated bonds	3.5	15.8
ATS trades	14.0	57.9
Non-ATS trades	8.7	27.1
Callable bonds	14.3	48.4
Noncallable bonds	6.6	27.9

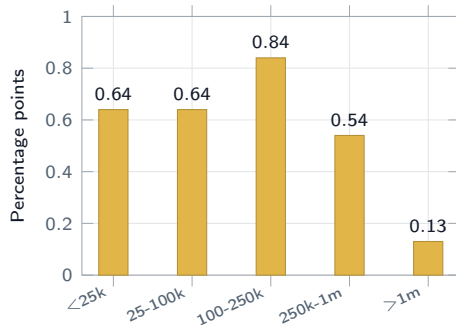
- ▶ Smithereening is concentrated in bond segments commonly associated with retail distribution: discount, long-maturity, callable, and ATS-traded issues.

Table 4: Smith Bonds trade with higher offer-relative markups

Smith minus non-Smith markup gap over event time



Markup gap by trade size, first 60 days



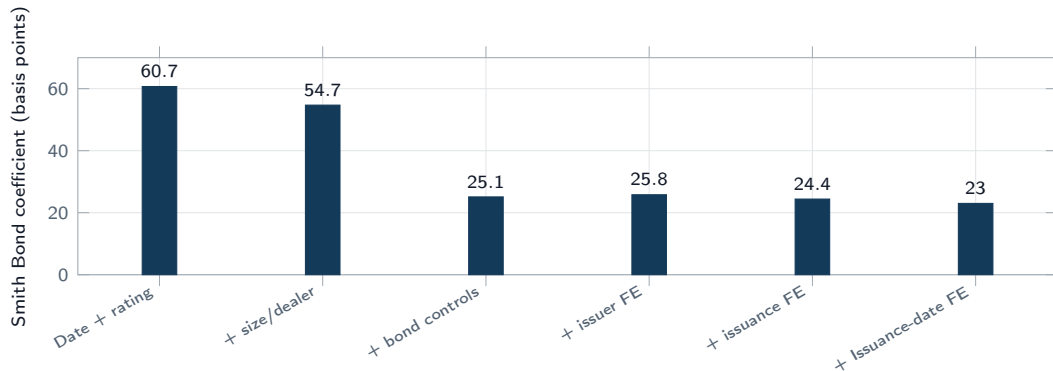
The unconditional gap is large, persistent, and concentrated below institutional ticket sizes.

Table 6: regression equation and identification

$$\begin{aligned} OfferMarkup_{ibdt} = & \alpha + \beta \text{SmithBond}_b + \gamma' \text{Size}_i + \delta' \text{Dealer}_{dt} + \theta' \text{Bond}_b \\ & + \lambda_t + \rho_{rating(b)} + \mu_{g(b)} + \varepsilon_{ibdt}. \end{aligned}$$

Observation	Customer trade i in bond b , executed by dealer d on trade date t .
Key coefficient	β is the incremental offer-relative markup for trades in Smith Bonds.
Trade-size controls	Indicators for <\$25k, \$25k-100k, \$100k-250k, and \$250k-1m; $\geq$ \$1m is omitted.
Dealer controls	Inventory, centrality, reciprocity, national market share, state market share, and odd-lot indicator.
Bond controls	Log maturity, GO, callable, sinking fund, bank qualified, taxable, ATS, and log issue amount.
Fixed effects	Trade date and rating throughout. Columns (4)-(6) separately add issuer, issuance, or issuance-date fixed effects through $\mu_{g(b)}$.
Inference	Standard errors clustered by trade date; reported table values are percentage points of par.

Table 6: the Smith Bond premium survives rich controls



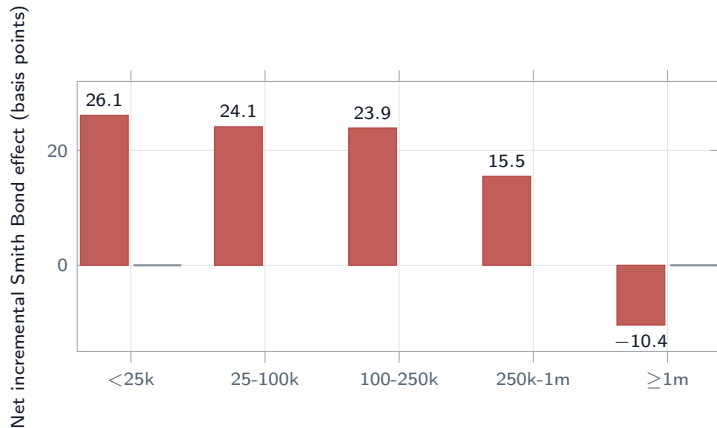
Economic magnitude

- ▶ Smith Bond premium: **60.7 bp to 23.0 bp.**
- ▶ On a \$100,000 trade: about **\$610 to \$230.**

Yield interpretation

- ▶ Roughly **3 bp to 7 bp lower customer yields**, assuming a representative modified duration of about 9 years.

Table 7: the premium is concentrated in retail-sized trades



Interpretation

The incremental premium is positive across retail and mid-sized tickets, then disappears for institutionally sized tickets.

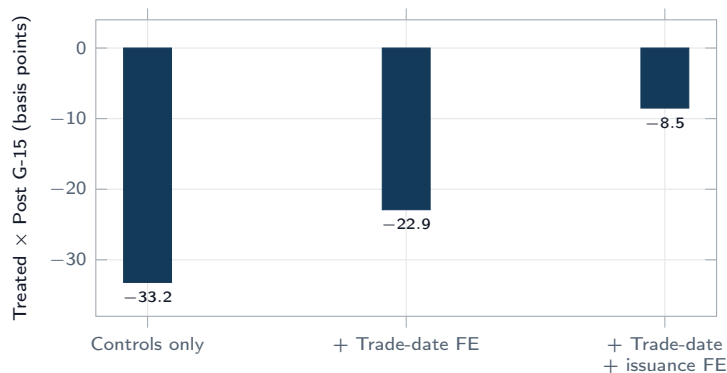
This is a retail-facing pricing wedge, not a uniform bond-level effect.

Table 8: pricing patterns are more strategic on Smith Bonds

	Coarse price	Fine price	Coarse yield	Fine yield
Smith Bond	0.044***	0.018***	0.003	-0.007*
<i>t</i> -stat	(8.43)	(6.29)	(0.71)	(-1.77)
Observations	887,533	887,533	887,533	887,533
R^2	0.34	0.19	0.32	0.39

Smith Bonds are more likely to trade at salient price grid points, consistent with strategic retail pricing rather than only mechanical matching.

Table 10: disclosure compresses excess markups



Rule G-15 amendment

Starting May 14, 2018, covered retail principal trades had to disclose dealer markups.

Specification labels

- ▶ **Controls only:** bond, trade, and dealer controls; no fixed effects.
- ▶ **+ Trade-date FE:** absorbs common daily market conditions.
- ▶ **+ Trade-date + issuance FE:** adds issuance fixed effects; most demanding estimate, **-8.5 bps**.

What the evidence says about the mechanism



Little inventory risk

Exact Smith Trades are simultaneous matched pairs, leaving almost no time for price movements or inventory exposure.

Retail concentration

The Smith Bond premium is concentrated in retail and mid-sized tickets, not trades above \$1 million.

Transparency matters

The markup wedge falls after Rule G-15 makes dealer compensation more visible to customers.

Together, the evidence is more consistent with dealers monetizing retail demand after issuance than with compensation for inventory risk.

Conclusion: why smithereening matters

For issuers

Retail demand that is not incorporated into the primary offering may not translate into lower borrowing costs.

For investors

Secondary-market distribution can transfer part of the retail willingness to pay to intermediaries through higher markups.

For market design

Allocation practices and markup transparency affect who captures the value created by retail demand.

Smithereening links primary-market placement to retail trading costs: who receives the initial allocation helps determine whether retail demand benefits issuers or intermediaries.

Thank You!