

The Cost Burden of Negotiated Sales Restrictions: A Natural Experiment Using Heterogeneous State Laws.

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Summary and Results

- ▶ Should legislation restrict the negotiated sale of school bonds?
- ▶ What are the costs of negotiated sales restrictions?
- ▶ Results:
 - ▶ They increase gross spreads.
 - ▶ They increase bond yields for maturities up to twenty years.
 - ▶ They decrease bond yields for maturities beyond twenty years.

Selection Bias - Literature Review - Contribution

- ▶ Which is better, competitive sales or negotiated Sales?
- ▶ We cannot compare them directly (selection bias).
- ▶ Example:
 - ▶ Negotiated sales cost \$20.
 - ▶ Competitive sales avg cost= \$50, where,
 - ▶ Comp cost=\$10 for half the issuers,
 - ▶ Comp cost=\$90 for half the issuers.
 - ▶ **True difference** (Neg-Comp)= $\$20 - \$50 = -\$30$.
 - ▶ Choice: competitive if cost=\$10, negotiated if cost=\$90.
 - ▶ **Observed difference** (Neg-Comp)= $\$20 - \$10 = +\$10$.
- ▶ Literature: model the choice problem.
- ▶ **My Contribution: I avoid the choice problem:** *I compare the bond issues of unrestricted issuers to the bond issues of issuers that are bound by law to use competitive sales.*

Comparable Bonds - Statutory Security Classification

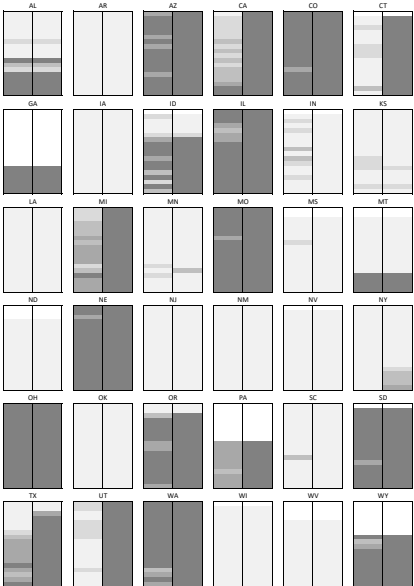
- ▶ General Obligation v. Revenue is an insufficient classification!
- ▶ 3 Types:
 - ▶ Temporary borrowings.
 - ▶ COPs/Installment.
 - ▶ GO and RV Bonds & Notes.
- ▶ Contribution: Statutory Security Classification:

Primary source of security	Unlimited
Primary creates revenues	Secondary source of security
Primary source role	Pledge/Lien on secondary
Pledge/Lien on primary	Full Faith and Credit
Primary cont' appropriation	Unrestricted funds and revenues
Primary unlimited	State Guaranty

Data

- ▶ 17,313 'New money' GO school Bonds & Notes "deals" between 2004-2014.
- ▶ Gross spreads, yields, issuer data, deal data, bond data.
- ▶ Final sample: 16,661 with hand-collected security data, and hand-collected statutory sales provisions data.

Sales Provisions since 1997



Yield Regression - Effect on Yields by Maturity Year

- ▶ Dependent Variable: Bond yield.

Mat	Eff(%)	Mat	Eff(%)	Mat	Eff(%)
1-yr	0.20	11-yr	0.13	21-yr	-0.06
2-yr	0.13	12-yr	0.13	22-yr	-0.09
3-yr	0.18	13-yr	0.12	23-yr	-0.18
4-yr	0.18	14-yr	0.11	24-yr	-0.20
5-yr	0.18	15-yr	0.13	25-yr	-0.09
6-yr	0.16	16-yr	0.10	26-yr	-0.41
7-yr	0.16	17-yr	0.11	27-yr	-0.49
8-yr	0.15	18-yr	0.09	28-yr	-0.53
9-yr	0.15	19-yr	0.09	29-yr	-0.33
10-yr	0.14	20-yr	0.08	30-yr	-0.05

- ▶ Included Covariates: Statutory security (Primary Source, Unlimited, State FFC), coupon type, tax status, callable, sinkable, par value, maturity, bond rating, state F.E., Maturity F.E., and Month-Year F.E..

Conclusion

- ▶ Future research should use the statutory security classification.
 - ▶ Informative: It has predictive power beyond bond ratings.
 - ▶ Parsimonious: Suitable for quantitative analysis.
 - ▶ Scalable: Suitable for a variety of bond types.
- ▶ Sales laws should:
 - ▶ Allow negotiated sales for maturities below 20 years,
 - ▶ Consider the trade-off between lower yields and higher gross spreads for maturities above 20 years.