State Government Trifectas and Municipal Bond Pricing

Riddha Basu
The George Washington University

Amanda W. Beck
Georgia State University

Angela K. Gore
The George Washington University

Kevin T. Rich
Marquette University

What is a “Trifecta”?

- One party holds the governorship and a majority in both legislative chambers (state house and senate)

- Essentially reflects single-party dominance in state government

Main research question

- Are municipal bondholder yield spreads affected by state government trifectas?
- In other words, how do municipal bond investors view one-party state-level political dominance?

Why do we care?

- Municipal bond market is very significant ($4 Trillion outstanding)
- Trifectas are increasingly common
  - 25 of 50 states in 2000
  - 40 of 50 states in 2024
- States exert considerable control over local governments, including imposing, monitoring and enforcing laws and regulations arguably important to bondholders; yet little is known about how one-party dominance affects bondholders

Hypothesis

Trifectas may lower risk for bondholders	Null hypothesis	Trifectas may increase risk for bondholders
• Quick to respond (Alt and Lowry 1994) • Centralized accountability (Leyden and Borrelli 1995) • Selective enforcement of harmful policies (Gerber et al. 2004)	**There is no relation between state government trifectas and municipal bondholder yields.**	• Impose unfunded mandates (Kelly 1994) • Less local flexibility (Poterba 1994) • Utilize pre-emption (Bloomberg 2023)

Sample

- Data are from MSRB/Mergent, 2005 – 2018
- Primary sample consists of secondary market trades for a large sample of local bonds, including schools, special districts, counties, cities, towns, etc.
  - Additional analysis uses primary market trades, with consistent results

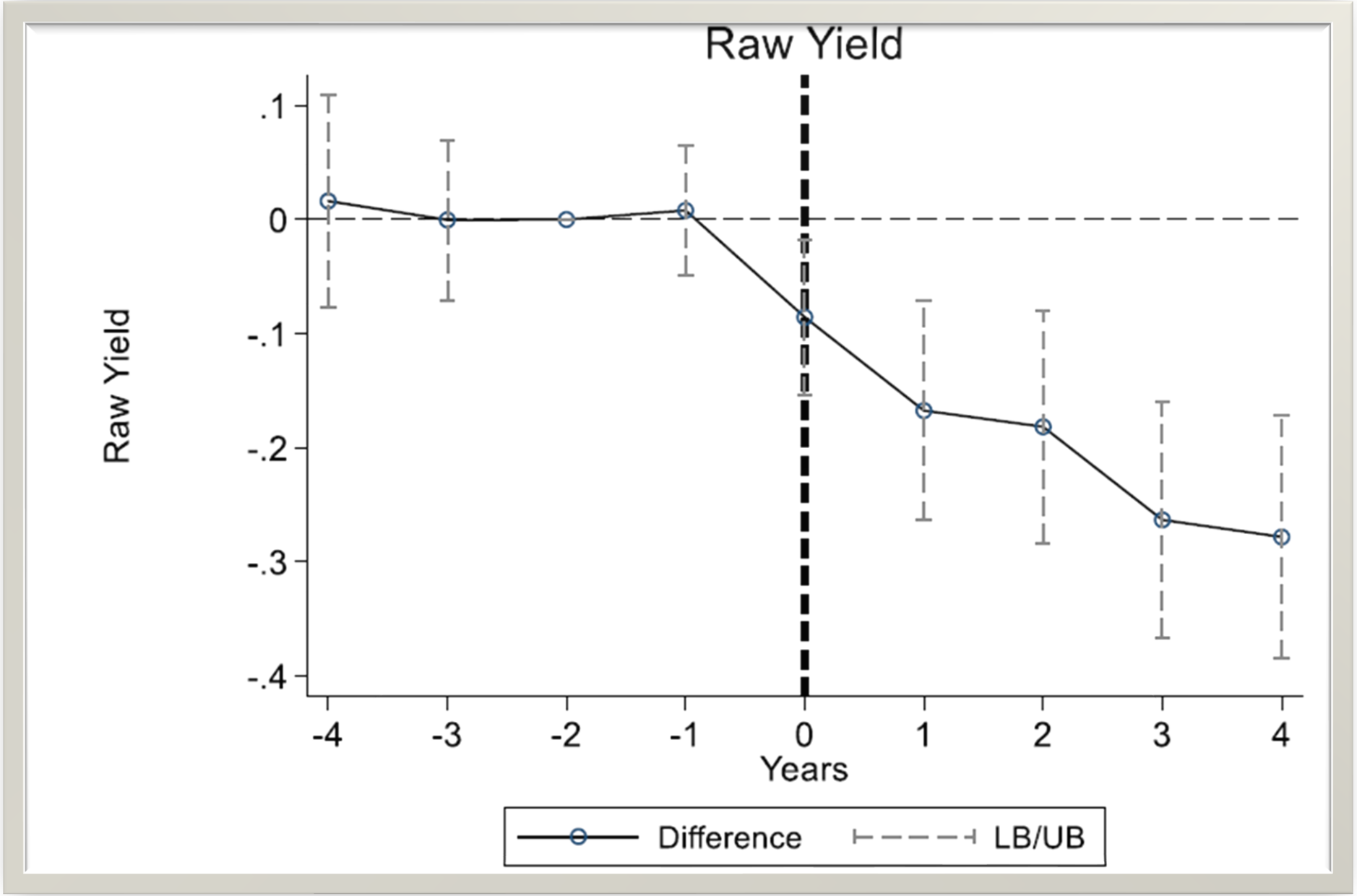
Specifications

- State-and-time varying difference-in-differences design

$$\mathbf{Yield}_{b,t} = \beta_0 + \beta_1 \mathbf{Trifecta}_{b,t} + \mathbf{Controls} + \varepsilon$$

- *Yield* – Alternatively raw or tax-adjusted yield spread for bond *b*, month *t*

- Additional analysis focuses on new trifectas using a stacked event study design



This figure plots regression estimates of difference-in-differences coefficients with 95% confidence intervals. We use the initiation of a trifecta (Year 0), indicated by the bold dashed line, with four years preceding and following trifecta initiation.

Tables 3-4. Main tests – staggered DiD design

	(1)	(2)	(3)	(4)
Dependent variable	Raw Yield	Raw Yield	Tax-Adjusted-Yield Spread	Tax-Adjusted-Yield Spread
Trifecta	-0.035***	-0.042***	-0.066***	-0.072***
	(-2.631)	(-3.289)	(-3.125)	(-3.543)
	FE Only	All controls + FE	FE Only	All controls + FE
Adjusted R-squared	0.526	0.638	0.605	0.663
Number of Bond-Months	3,142,515	3,142,515	3,142,515	3,142,515

- Yield spreads for secondary market trades during trifecta state-years are 4 – 20 basis points lower, depending on the specification

Why are muni yields lower under trifectas?

- Schwert (2017) suggests that default risk is an important component of municipal bond prices, comprising 74-84% of average spreads, while liquidity risk is not as substantial

- We next conduct three cross-sectional tests focusing on state laws that increase local yield spreads through higher default risk

  - States allowing Chapter 9 municipal bankruptcy
  - States with restrictive tax limitation measures
  - States allowing direct voter initiatives

Table 5. State Chapter 9 municipal bankruptcy laws

State laws allowing municipal bankruptcy increase bondholder risk (and hence yields).

	(1)	(2)	(3)	(4)
	Chapter9=1	*Chapter9=0*	*Chapter9=1*	*Chapter9=0*
Dependent variable	Raw Yield	Raw Yield	Tax-Adjusted Yield Spread	Tax-Adjusted Yield Spread
Trifecta	-0.095***	-0.010	-0.203***	-0.002
	(-3.454)	(-0.914)	(-4.369)	(-0.107)
	Diff = 0.085 P-Value = 0.000		Diff= 0.201 p-value = 0.000	
Adjusted R-squared	0.647	0.634	0.674	0.657
Number of Bond-Months	1,265,162	1,877,353	1,265,162	1,877,353

State trifectas help offset the higher risk associated with “hands off” local bankruptcy policies.

Table 6. State tax limitation laws

State laws restrict local governments' ability to raise taxes, constraining financial flexibility, and increasing risk (and hence yields) to bondholders.

	(1) *High Restrictiveness*	(2) *Low Restrictiveness*	(3) *High Restrictiveness* Tax-Adjusted	(4) *Low Restrictiveness* Tax-Adjusted
Dependent variable	Raw Yield	Raw Yield	Yield Spread	Yield Spread
Trifecta	-0.059***	-0.012	-0.134***	0.025
	(-3.481)	(-0.935)	(-4.596)	(1.000)
	Diff = -0.047 P-Value = 0.000		Diff= -0.159 p-value = 0.000	
Adjusted R-squared	0.634	0.652	0.669	0.654
Number of Bond-Months	2,163,470	1,075,617	2,102,995	1,038,375

State trifectas help offset higher risk imposed by local tax limitations.

Table 7. State direct initiative laws

State laws allowing voters to place initiatives directly on the ballot increase bondholder risk (and hence yields).

	(1) *Initiatives*	(2) *No Initiatives*	(3) *Initiatives*	(4) *No Initiatives*
Dependent variable	Raw Yield	Raw Yield	Tax-Adjusted Yield Spread	Tax-Adjusted Yield Spread
Trifecta	-0.085***	0.006	-0.190***	0.053***
	(-4.545)	(0.589)	(-5.900)	(2.922)
	Diff = -0.091 P-Value = 0.000		Diff= -0.241 p-value = 0.000	
Adjusted R-squared	0.631	0.646	0.668	0.661
Number of Bond-Months	1,412,314	1,828,017	1,371,865	1,770,650

State trifectas help offset the higher risk from direct initiative laws.

Conclusion

- We explore the effects of state trifectas on local bondholder yields.
- Primary findings show secondary market yield spreads are significantly lower under state government trifecta regimes.
- Cross-sectional tests explore three state laws (municipal bankruptcy, tax limitations, direct voter initiatives), finding results are magnified under all three measures, suggesting trifectas help offset the risk imposed by these state laws.
- Overall, our study provides novel evidence of municipal bond market implications of state-level one-party dominance.

Thank you!

Table 1. Descriptive Statistics

Panel A: Descriptive Statistics for Secondary Market Analyses

Variable (N= 3,142,515 bond-month)	*Mean*	*Std. Dev.*	*P25*	*Median*	*P75*
Dependent Variable:					
Raw Yield (%)	2.485	1.41	1.262	2.355	3.59
Tax-adjusted Yield	4.139	2.302	2.168	3.974	5.897
Tax-adjusted Yield Spread	2.345	2.544	0.559	1.902	3.882
Variables of Interest:					
Trifecta	0.625	0.484	0	1	1
Bond Characteristics:					
Maturity (Years)	15.016	7.382	9.395	13.592	19.556
Avg rating	12.818	2.122	11.5	13	14
Coupon	4.539	0.808	4	5	5
Ln_Amount	17.833	1.36	16.884	17.773	18.764
Offering Amount (M$)	136.295	244.106	21.5	52.325	141.025
Callable	0.661	0.473	0	1	1
Insured	0.429	0.495	0	0	1
Trade Characteristics:					
Ln_Aggtrades	2.438	0.109	2.372	2.424	2.502
Ln_Numtrades	0.324	0.224	0.094	0.327	0.476
Institutional	0.103	0.275	0	0	0
Inventory	0.685	0.432	0.1	1	1
Ln_ParTraded	10.402	1.083	9.616	10.127	10.869
Economic Controls:					-
Ln_Persincome	13.23	0.888	12.604	13.294	13.958
Ln_GSP	13.39	0.905	12.763	13.413	14.174

Table 1. Sample Composition

Sample Composition by Type of Bonds:

Bond Type	*Trifecta*	*Non-Trifecta*	*Diff*
General Obligation	160,180 (59.7%)	132,648(65.4%)	-5.6%***
Revenue Bonds	46,217(17.2%)	35,177(17.3%)	-0.1%
Other- etc.	61,830 (23.1%)	35,122 (17.3%)	5.8%***
Total (#Bonds)	268,227	202,947	

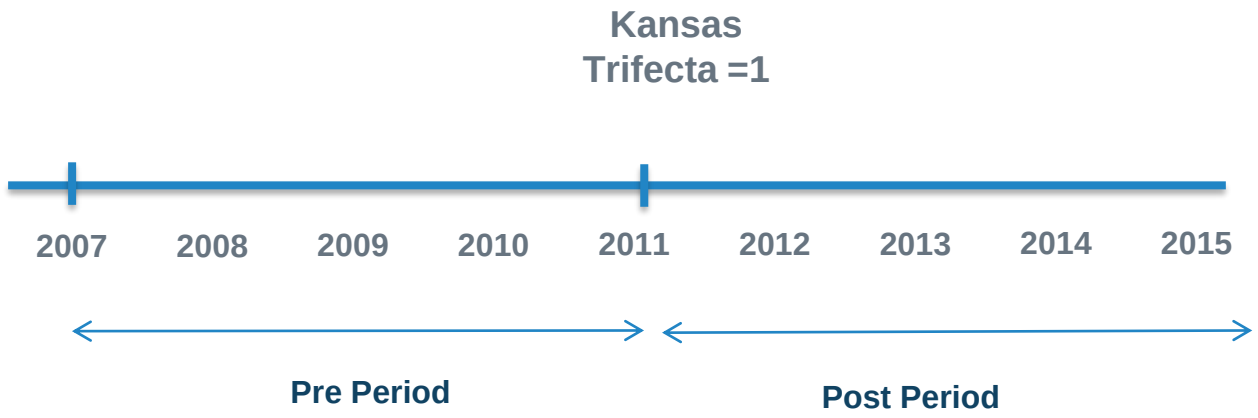
Panel D: Sample Composition by Type of Issuerss:

Bond Type	*Trifecta*	*Non-Trifecta*	*Diff*
Schools	75,678(28.2%)	62,272(30.7%)	-2.5%***
Special Districts	103,283(38.5%)	67,699(33.4%)	5.1%***
Counties	23,181(8.6%)	19,029(9.4%)	-0.7%***
Municipalities (Cities, Town, Village, Borough)	65,903(24.6%)	53,841(26.5%)	-1.9%***
Other- etc.	182 (0.07%)	106 (0.05%)	0.02%**
Total (#Bonds)	268,227	202,947	

Stacked Event Study Design

- Trifecta treatment does not necessarily “switch on and stay on” over time, but rather, can also “switch off” during our sample period (de Chaisemartin and D’Haultfoeuille 2022).
- Stacked event study regression design, as described in Baker et al. (2022) and implemented in Cengiz et al. (2019).
- For each new trifecta, we identify separate “clean control” samples, wherein no trifecta exists throughout the same eight calendar years (Cengiz et al. 2019).

Stacked Event Study Design (36 Unique Events)



Control States:
No trifecta between 2007-2015
RI, MT, KY

Border State Capital: KY

Tables 3-4. Main tests – stacked event study design

Trifecta	-0.166***	-0.199***	-0.294***	-0.343***
	(-5.077)	(-6.654)	(-5.156)	(-6.489)
Issuer X Event Fixed Effects	Yes	Yes	Yes	Yes
Year-Month X Event Fixed Effects	Yes	Yes	Yes	Yes
Window X Event Fixed Effects	Yes	Yes	Yes	Yes
All other controls	Yes	Yes	Yes	Yes
Control sample	All	Closest Border	All	Closest Border
Adjusted R-squared	0.640	0.658	0.740	0.716
Number of Bond-Month-Event	1,990,356	1,001,404	1,990,356	1,001,404

Secondary market yields are significantly reduced under trifectas

Trifecta Strength

- Additional test to examine whether trifecta effect is more impactful for
  - Longer Trifecta's
  - Veto Proof