Native American Governments' Borrowing Costs: Evidence from Municipal Bond Markets

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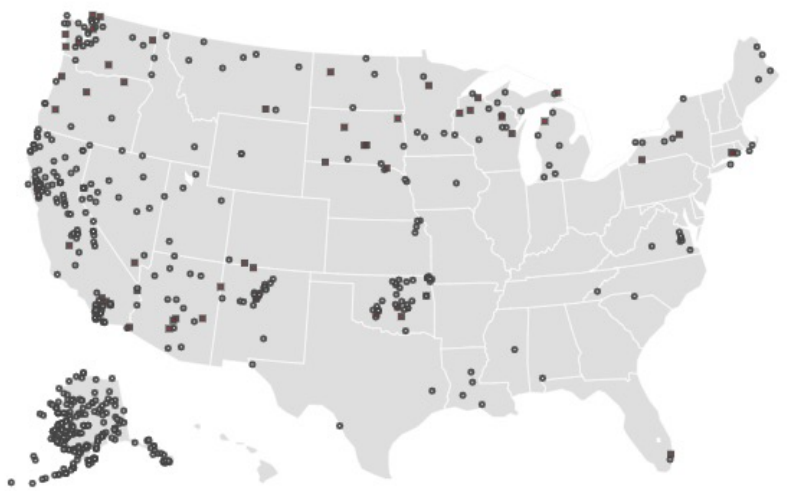
Native American Tribal Governments

The United States government currently recognizes 574 sovereign tribal nations located within 35 states

- Tribal nations control approximately 100 million acres of land; they collectively manage more land than all but three state governments (NCAI 2020)
- Tribal nations represent over 9.7 million citizens; collectively they encompass more citizens than 40 state governments (U.S. Census Bureau 2021)
- Tribal governments are responsible for a broad range of government activities (e.g., law enforcement, judicial systems, health care, environmental protection, natural resource management, infrastructure development and maintenance) (NCAI 2020)



**We use the term "Native American" along with the term "American Indian and Alaska Native" to refer to indigenous individuals who are enrolled members of federally recognized tribes*

Tribal Governments' Capital Needs

Tribal governments report unmet capital needs that impact their ability to provide services

- Estimates of unmet needs begin at $44 billion annually (Clarkson 2007, Way 2016)

"I often equate economic development to farming and water. If you set out to be a farmer and you go out and buy the best equipment, you have good lands, good workers, and infrastructure like barns and silos, you will fail if you do not have access to water. So, in the economic world, and the currency of the country, for economic development, capital is water. Viewing things through that lens is really helpful because **Indian Country has been starved by not receiving the capital it needs –** the water it needs **– and it is reflected in the policies."** [emphasis added]

---- Dante Desiderio, CEO of the National Congress of American Indians

Testimony to the House Select Committee on Economic Disparity and Fairness in Growth "Roundtable with Native American Leaders on Economic Empowerment"

Regulatory Obstacles in Accessing Municipal Finance

I.R.C. § 7871 (a) establishes that tribal governments be treated as states, which allows the issuance of tax-exempt debt

However, the IRC places restrictions on tribes that are not present for states

- I.R.C. § 7871 (c) (1) restricts tribal governments to issuing tax-exempt municipal bonds for "essential government functions"
- I.R.C. § 7871 (c) (2) and I.R.C. § 7871 (c) (3) restrict tribal governments from issuing private activity bonds (conduit bonds for qualified projects including airports, hospitals, and rental housing)

Tribal leaders testify that lack of tax parity impacts their ability to obtain tax-exempt financing for many capital projects

Implications of Regulatory Obstacles for Tribal Governments

- Only 17% of tribes have issued municipal debt (Brashares and O'Keefe 2013)
- 559-fold difference in issuances between state governments and tribal governments (annual issuances of approximately $47 *billion* by state governments and $84 *million* by tribal governments) (Gregg 2021)
- Higher IRS audit rates of tribal tax-exempt debt (Reynolds 2006; Clarkson 2007)

Our study shows:

- Tribal issuances account for 0.01% of all municipal debt issuances
  - AIAN individuals account for 2.9% of the US population (US Census Bureau 2020)
- Tribal issuers are less likely to issue tax-exempt debt than state and local issuers (73% of tribal issuances versus 93% of non-tribal issuances)

Examples of Legislative Activity to Increase Capital Access

Proposed Legislative Acts (Not Passed)

- Tribal Government Tax-Exempt Bond Parity Act of 2007
- Tribal Tax and Investment Reform Acts of 2016
- Tribal Tax and Investment Reform Acts of 2019
- Tribal Tax and Investment Reform Act of 2021
- Build Back Better Act of 2021

Legislative Hearings and Reports

- **U.S. Senate** Committee on Finance (2006)
- **U.S. Department of the Treasury** (2011), Report and recommendations to Congress regarding tribal economic development bond provision
- **U.S. House** Select Committee on Economic Disparity and Fairness in Growth (2022)

Our Research Question

Do Native American governments face higher borrowing costs for municipal bonds than state and local governments?

Data

- We search the Mergent Municipal Bond Securities Database from 1982 – 2021 for 621 tribe name keywords
- Results in a sample of 362 bonds issued by 56 tribal nations from 1992 – 2021, totaling $4.9B
  - Univariate tests: 277 bonds issued by 42 tribal nations
  - Multivariate tests: 185 bonds issued by 30 tribal nations

- State and local government comparison group:

  1) in the same states and years as tribal government issuances

  2) with similar capital purpose, tax status, offering type, and security type as tribal government issuances

  3) with nonmissing yields

  - Results in 939,773 to 925,854 bonds issued by state and local governments.

Bond Issuance Sample Statistics

	Tribal Governments			Non-Tribal Governments			Difference in Means	
Variable	N	Mean	SD	N	Mean	SD	Tribal - Non-Tribal	t-stat
Yield	277	577.369	183.502	939,773	287.898	165.192	289.471***	(29.16)
Price	277	98.380	11.010	939,671	103.353	10.950	-4.978***	(-7.56)
Advisor	277	0.134	0.341	939,773	0.706	0.455	-0.573***	(-20.94)
Amount	275	12.354	31.527	928,185	3.561	27.744	8.793***	(5.25)
Bank Qualified	277	0.181	0.385	938,986	0.368	0.482	-0.188***	(-6.48)
Callable	277	0.386	0.488	939,773	0.427	0.495	-0.041	(-1.38)
Competitive	186	0.048	0.215	939,773	0.502	0.500	-0.453***	(-12.36)
General Obligation	277	0.079	0.271	939,773	0.437	0.496	-0.357***	(-11.99)
Insured	277	0.108	0.311	939,773	0.295	0.456	-0.187***	(-6.82)
Maturity	277	10.520	7.129	939,773	9.564	6.691	0.951*	(2.36)
New Money	277	0.798	0.402	939,773	0.546	0.498	0.252***	(8.42)
Puttable	277	0.000	0.000	937,851	0.002	0.041	-0.002	(-0.68)
Rating	277	18.760	6.109	939,773	10.900	9.191	7.861***	(14.23)
Rating (if rated)	75	10.030	5.766	563,968	3.499	1.969	6.528***	(28.69)
AAA Rated	75	0.053	0.226	563,968	0.202	0.402	-0.149**	(-3.21)
AA Rated	75	0.027	0.162	563,968	0.339	0.473	-0.312***	(-5.72)
Below AA	75	0.920	0.273	563,968	0.458	0.498	0.462***	(8.02)
Unrated	277	0.729	0.445	939,773	0.400	0.490	0.329***	(11.19)
Revenue Bond	277	0.697	0.460	939,773	0.317	0.465	0.379***	(13.56)
Sinking Fund	277	0.332	0.472	939,773	0.078	0.268	0.254***	(15.80)
State Taxable	277	0.079	0.271	939,314	0.095	0.293	-0.0153	(-0.87)
Taxable	277	0.274	0.447	939,773	0.071	0.257	0.203***	(13.18)

Research Design

$$Yield = \alpha_1 + \beta_1(Tribe) + \beta_2(Control\ Variables) + \beta_3(\text{State} \times \text{Year Fixed Effects}) + \beta_4(\text{Rating Fixed Effects}) + \varepsilon$$

Control Variables Include:

Ln(Amount), Ln(Maturity), Insured, Taxable, Callable, Competitive, Sinking Fund, Revenue Bond, Advisor, Rating, New Money, State Taxable, Puttable, Bank Qualified

Determinants of Initial Bond Yield (Table 3)

	(1) Yield	(2) Yield	(3) Yield	(4) Yield	(5) Yield	(6) Yield
Tribe	289.471***	185.733***	171.159***	251.464***	160.281***	153.787***
	(13.16)	(7.56)	(7.32)	(9.37)	(6.84)	(6.82)
Control Variables Included	No	No	No	Yes	Yes	Yes
State-by-Year Fixed Effects	No	Yes	Yes	No	Yes	Yes
Rating Fixed Effects	No	No	Yes	No	No	Yes
N	940,050	940,050	940,050	926,039	926,039	926,039
R-sq	0.00	0.39	0.40	0.35	0.63	0.63

Given the average non-tribal yield of 288 bps, tribes pay 53% higher interest than non-tribal governments.

Given the average tribal loan amount of $12.4M, tribes pay $190K more in annual interest than non-tribal governments.

**Control variables not tabulated for brevity*

Determinants of Initial Bond Yield: Subsample Analysis (Table 4)

	(1) Yield	(2) Yield	(3) Yield	(4) Yield	(5) Yield	(6) Yield
	Rated Bonds	**Tax-Exempt Bonds**	**Insured Bonds**	**Bonds without Call Options**	**Loan amounts of $1M or more**	**Fixed Rate Bonds**
Tribe	64.442**	146.042***	89.972**	168.373***	151.714***	147.614***
	(2.37)	(5.48)	(2.13)	(6.02)	(5.91)	(6.41)
Control Variables Included	Yes	Yes	Yes	Yes	Yes	Yes
State-by-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Rating Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
N	558,026	860,298	271,077	530,410	352,559	907,750
R-sq	0.80	0.68	0.52	0.57	0.7	0.64

Given the average non-tribal yield of 288 bps, tribes pay 22% higher interest than non-tribal governments.

Given the average tribal loan amount of $12.4M, tribes pay $79K more in annual interest than non-tribal governments.

Empirical Robustness

- Propensity score match with replacement, matching exactly on state, year, month, Insured, Taxable, and Revenue Bond (match 92 tribal bonds with 62 non-tribal bonds)
- Nearest neighbor propensity score match without replacement (match 36 tribal bonds with 43 non-tribal bonds)
- Entropy balancing
- Alternative fixed effects specification a la Baker et al. (2022): 1) maturity-by-rating-by-issuance year-month, 2) bond size decile, 3) issue size decile, 4) use of proceeds, and 5) state
- Robustness of Credit Rating
  - In lieu of Rating, we include an indicator for Rated + Rated*Rating in the model

Conclusion

- Native American tribal governments pay a premium of 64 to 251 basis points on their municipal debt.
- Given that the average tribal (non-tribal) municipal yield is 577 (288) basis points, this premium results in a 22 to 87% higher cost of borrowing for tribal bonds.
- This translates to approximately $79,000 to $310,000 in higher annual interest payments for the average tribal issuer.

➢ These results highlight that tribal governments' challenges in accessing municipal bond capital do not end when they are able to access municipal markets; rather, tribal governments experience significantly higher borrowing costs than state and local governments that may temper the benefits of their borrowing.

Thank you!

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