CORNERSTONE RESEARCH Economic and Financial Consulting and Expert Testimony

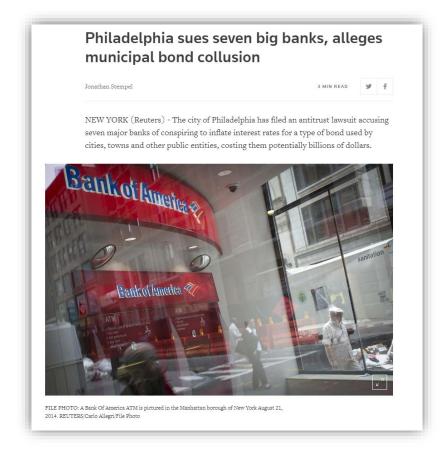
Competition and Market Concentration in the Municipal Bond Market

Nicole Moran, Ph.D.

Principal

7/15/2019

Cities Suing Over Municipal Bond Collusion

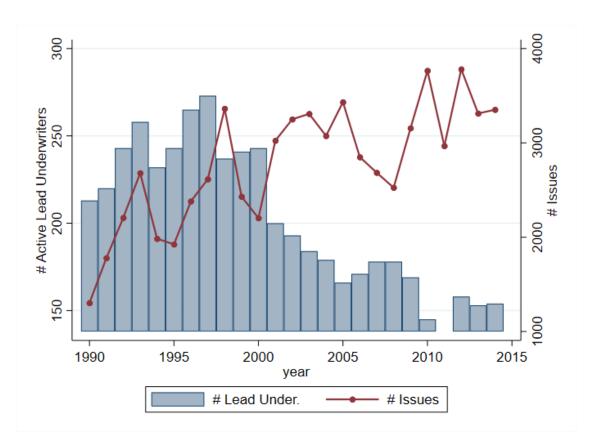




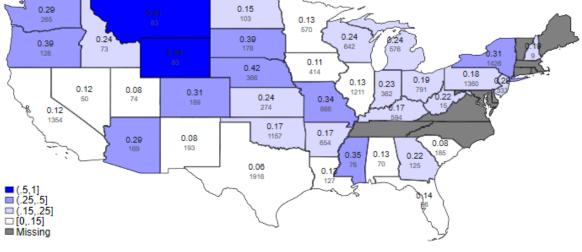
This Paper:

- Evaluates the relationship between the proportion of competitive sales (versus negotiated sales) and the concentration of underwriters of bonds issued by school districts.
- Shows that underwriter concentration, measured using HHI, is increasing over time:
 - The underwriter concentration at the national level is generally low by DOJ standards (especially in the segment of new issues).
 - The underwriter concentration is greater at the state level.
- Demonstrates that a higher proportion of competitive sales is negatively correlated with greater underwriter concentration at the state level.

Deals and Underwriters



2010-2014 HHI



Suggestion #1: Add Economic Argument

- Add an economic analysis of competitive vs. negotiated deals that describes the differences between the two types of deals.
 - Besides regulation, what deal characteristics drive the choice between competitive and negotiated deals?
 - You state that, when states "are allowed to choose, they predominantly prefer negotiated sales" (p. 13): Why? Why do states remove restrictions?
 - You state that, given that competitive deals "are cost-saving mechanism, it remains largely unexplained why negotiated deals prevail in the muni market" (p. 2): Why? Are negotiated sales associated with any cost savings?
 - Why might one type lead to more concentration than the other?
- Is underwriter concentration a by-product of specialization?
 - IPO literature suggests that risk and information costs affect the choice between competitive and negotiated deals.
 - Size of the deal: are bigger deals more likely to be negotiated?

Suggestion #2: Interpretation of Main Results & Causality

- Results show a negative correlation between the proportion of competitive deals and the concentration of underwriters. For a 1 percentage point increase in the proportion of competitive sales, HHI decreases by -0.29 (or 2,900).
 - What is the intuition behind the differences in results for new-money (-0.26) versus refunded bonds (-0.11)?
 - For policy implications, it is important to conduct a direct test based on states with exogenous changes in laws from fully negotiated to fully competitive.
- Results should be interpreted with caution, given that concentration of underwriters is not unequivocally harmful. For example, these statements may be too strong:
 - "Lack of competition among the underwriters of municipal bonds increases the borrowing costs of local municipalities." (Abstract)
 - "The risks of higher concentration are twofold. It can increase market power and the likelihood of collusion." (p. 32)

Suggestion #3: Who Is Harmed and by How Much?

- Why would we expect underwriter concentration to be harmful in municipal bond markets?
- If concentration happens as a result of specialization at the regional level, couldn't it be helpful?
- Does concentration lead to higher yields or fees? By how much?
- If someone is being hurt, who is being hurt? Taxpayers? School districts?
- For policy implications, it would be helpful to add an explanation to reconcile the preliminary findings from two years ago with your current findings.
 - Previous preliminary results found that state restrictions on negotiated sales resulted in higher gross spreads and yields. More recent results find that the average issuer can place bonds at yields ~10bp lower through competitive sales.

Other Points

- Display the trend in the proportion of competitive sales over time.
- Is the average size of the deals changing over time?
- Show what happened in these states after states change from fully restricted to negotiated. Can you compare states changing their policies with other states that do not?
- There are states that moved from fully competitive to fully negotiated (e.g., Montana); why?
- There are fully free states that conduct mostly competitive sales (e.g., Utah, South Carolina); why?
- On p. 12, you state: "Of the 41 states remaining in the sample, there are restricted deals in 22 states, and free deals in 37 states." It is unclear how you arrive at 41 states and which states have restricted deals and which states have free deals.
- You look at the concentration among lead managers. Do you find similar concentration results if you also include co-lead managers?

Other Points, cont'd.

- The paper would benefit from a deal-level analysis to better understand the reasons behind the choice between competitive and negotiated deals. Can you compare new-money bonds versus refunding bonds at the deal level, to see if the refunding bonds are more likely to be negotiated if they were negotiated the first time?
- Are there barriers to entry for underwriters? Why do the top underwriters in your sample operate locally and not nationally?
- From the sample, you remove temporary borrowings, which "are not rated in general, they have a different clientele-institutional investors...." Do you have data on the investor composition of your sample? Does investor composition affect the choice between competitive vs. negotiated deals?
- Cestau et al. (2017) state that school bonds account for about 15% of municipal bonds (p. 3). How generalizable are your findings? Any sense if results hold using other types of muni bonds (beyond school districts)?

Other Points, cont'd.

- Do you find any interesting variation during the financial crisis?
- Is the effect driven by overall concentration in the banking industry over time?
- You state that "other controls are irrelevant and omitted" (p.24). Please list the control variables that you used in your regression model.
- Consider refocusing the title of the paper on underwriter concentration for bonds issued by school districts.
- In the current draft of the paper, the section on building the database is quite long relative to the section (mostly the introduction) where you develop your main hypothesis, analyze the related literature, and provide a motivation for the paper.

CORNERSTONE RESEARCH

Economic and Financial Consulting and Expert Testimony

Boston Chicago London Los Angeles New York San Francisco Silicon Valley Washington

www.cornerstone.com

(