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Abstract

This article explores th cement providers, on the costs to municipal issuers for holding variable rate debt during the 2008—09 market crisis. Although municipal issuers were potentially subject to pressure on their debt issues due to credit contraction, the extent of the problem has not been well researched, especially regarding credit enhancement. This study empirically investigates whether liquidity providers affect the cost of municipal variable rate debt and whether the impact is affected by credit downgrades of liquidity providers. Several important contributions are made. First, this research emphasizes the role of liquidity provision as a form of credit enhancement. Second, the value of liquidity provision is examined in the environment of credit downgrades to liquidity providers. Third, the research tests capital market efficiency using variable, as opposed to fixed rate debt, which allows for the identification of liquidity risk and default risk.

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1.

1. Wang, Wu, and Zhang (2008) present a strong justification for examining liquidity in the municipal markets. ‘‘Because the municipal market is relatively illiquid compared to other markets, liquidity risk could potentially be a more important pricing factor for municipal bonds. When there is widespread deterioration in liquidity, it will be more difficult to liquidate municipal bonds than Treasuries securities. In anticipation of costly

liquidation in a low liquidity environment, investors would require higher yields to compensate for bearing this risk. Furthermore, the trade size of municipals is typically larger than that of equity transactions. Liquidity is expected to be more valuable for investors trading large orders even in routine transactions. In an unusual situation when the aggregate market liquidity suddenly dries up, it will be even more difficult to trade large quantities. Taken together, liquidity risk should be of more serious concern for municipal investors'' (Wang, Wu and Zhang, 2008, 1136).

2.

2. Credit rating scores have been treated as both scale (Nanda and Singh 2004; Downing and Zhang 2004), dummy variables (Kidwell, Sorensen, and Wachowicz 1987; Bland 1987; Simonsen, Robbins, and Helgerson 2001; Cole and Officer 1981), and both (Feroz and Wilson 1992; Hsueh and Liu 1990) in the literature. In early models, both formulations were used and the results did not differ in magnitude, direction, or significance. Therefore, this study used scale variables to enhance the parsimony of the model.

3.

3. The contraction of the municipal variable rate debt market has less to do with the demand for such instruments as with two exogenous factors (Seymour 2009a; Collias, personal communication, February 5, 2010). First, ''VRDOs normally need letter-of-credit backing from a bank to achieve ratings strong enough to be eligible for purchase by a money market fund. . . . Since the credit crisis decimated banks' credit ratings, letters of credit with sufficiently strong ratings are more expensive and difficult to find. As a result, sales of VRDOs are down 76.5% this year'' (Seymour 2009a). Second, the introduction in February 2009 of Build America Bonds as part of the American Recovery and Reinvestment Act has spurred the issuance of municipal taxable bonds, which represented 30.8 percent of the municipal market in August 2009. Anecdotal evidence suggests that banks are offering low-interest variable rate loans to municipalities instead of letters of credit to enhance variable rate bonded debt (Mattox, personal communication, February 5, 2010).

4.

4. It is noteworthy that most recent studies of this market have been either descriptive, or have relied upon secondary sources or anecdote, denoting a lack of available data on reoffering rates (Kriz and Levine 2009; Peng and Justice 2009; Levine and Greaves 2009; Johnson and Luby 2009).

5.

5. As the data expressed signs of heteroscedasticity and autocorrelation, the White-Huber Cluster Standard Errors approach was used. Standard errors were clustered by bonds and are presented in table 3. A Newey-West approach was also run, and the coefficients did not differ for our primary variables of interest. For additional conceptual background, please see Arceneaux and Nickerson (2009).

6.

6. The cost of liquidity provision varies according to a number of factors, including the underlying credit quality of the issuer, the geographic impact of demand for liquidity relative to supply, the degree that an issuer dominates the market, and the size of an issue. While each bank calculates its fees on a proprietary basis, generally fees between 75 basis points and 300 basis points are levied on the value of the debt outstanding. Post-2007, as credit has tightened, the fee spread has widened. Also, the tenure of liquidity facilities narrowed from 3 to 5 or 7 years, down to 1 to 3 years, during 2008—09.

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