Tax-exempt Tender Transactions: A Critical Examination

BROOKINGS

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Background: 5% Non-Call 10 Munis Are Designed for Churning

- Issued at a premium, *par call price* guarantees refunding
  - Savings easily exceed low threshold recommended by the GFOA
  - Can you find one over 10 years old?

- Advance refunding with T/E bonds was disallowed in 2017
  - What to do with *not-yet-callable* bonds to 'save'?
  - Alternative: refund on the call date

- 2018 to 2021: *advance refund with taxable* bonds
  - 'Savings Lost' article in PFJ shows that *billions more would have been saved by waiting until the call date*

- Since 2021: *tender and refund with tax-exempt bonds* (today's topic)
  - Tender prices 2 to 4 points over fair value, refund with 5% NC-10s

The Refunding Decision: Act Now or Wait?

- Outcome depends on future interest rates
  - Lots of possibilities, outstanding and refunding bonds *callable*

- Common municipal finance approach: consider various interest rate scenarios, and then make a subjective speculative decision
  - In an analytical vacuum, *without considering call option values*

- Recommendation: compare savings to *net* loss of option value
  - Straight-forward calculation, common-sense

- **Refunding Efficiency: Savings/Net Loss of Option Value (since 1977)**
  - Should be over 90%

Refunding Efficiency for MWRA 5%'s due 2043, Callable in 2028, Tender Price *109.86*

- Refunded with maturity-matched 5% NC-10 's due 2043, priced at *112.50*
  - Call feature reduces nominal savings
  - Transaction costs disregarded, to demonstrate calculation
  - *Need 0.976 new bond per old bond* (109.86/112.50)

- Step 1: Determine *optionless par rates,* to calculate savings and option-values
  - By stripping call options from new bonds using 30% interest rate volatility
    - Sanity check: ratios to Treasuries; see table on next slide

MWRA Optionless Yields at 30% Volatility

Massachusetts Water Resources Authority, Series 2023 Refunding Bonds Implied Optionless Yields at 30% Volatility				
Maturity (years)	**5% NC-10 Yield**	**Implied Optionless Yield**	**Treasury Yield**	**Ratio**
2	2.50	2.50	4.24	0.59
5	2.39	2.40	3.71	0.66
10	2.53	2.54	3.60	0.71
15	3.20	2.91	N/A	N/A
20	3.51	3.40	3.90	0.87

Refunding Efficiency for MWRA 5% due 2043, Callable in 2028, Tender Price *109.86* (continued)

- Step 2: Savings **2.91%**
  - PV to maturity of both outstanding and replacement bonds 123.77
  - PV savings: 123.77 – (0.976 * 123.77) = 2.91%

  Related results:
    - Fair value of outstanding bond: 106.36
    - Tender premium: ***3.50%*** (109.86-106.36); not disclosed
    - Savings with optionless refunding bonds: 13.91%; >> GFOA threshold

- Step 3: Net loss of option value **5.11%**
  - Old OV – New OV, or 16.16 – (0.976x11.32) = 5.11%

- Step 4: **Refunding Efficiency 57% (2.91/5.11)**

Review of Tender/Refunding Transactions

- Several dozen transactions to date, promotion on-going
  - Data not readily available (three documents needed)

- Investor response poor, acceptance rate under 30%
  - Capital gains taxable
  - Hold to maturity/call accounting of financial institutions inhibits selling
  - Retail investors unsuitable tender candidates

- Refunding efficiencies low, indicating that waiting would be preferable
  - Expected ‘Savings Lost’ is the tender premium over fair value (2 to 4 points) plus extraordinary transaction costs
  - Transaction is entirely speculative

Corporate Tender/Refunding Experience

- For savings, interest rates must decline below their *level at issuance*
  - Because bonds are issued at par
  - *5% NC-10 munis are refunded even if rates increase*

- Premium over par is tax-deductible to corporations
  - Applicable tax rate over 40%

- 1977: Tenders by Bell System telephone companies
  - For NC-5 bonds issued in 1974, acceptance rate about 80%
  - Decision based on *refunding efficiency*

- 1984: Large-scale tenders by electric utilities
  - For NC-5 and NC-10 bonds issued in 1981, acceptance rate about 80%
  - *Refunding efficiency* presented to corporate prospects

Optionless Bonds Are Preferable to 5% NC-10's

- Expected cost of optionless bonds is lower
  - Proof is not hard

However,

- Infrastructure prefers the churning of callable bonds
  - Underwriters, bond attorneys, municipal advisors

- Issuers chase and tout savings
  - Callable bonds offer an opportunity to save
  - Cost and value of call option routinely ignored

The Road to Municipal Waste Reduction: Financial Literacy

- Competency certification of municipal advisors by the MSRB
- Education of issuers by the GFOA