



Effective Bond Structuring in Today's Market *2022 Update*



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Monday, June 13, 2022, 10:15 AM – 12:15 PM

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Effective Bond Structuring in Today's Market - 2022 Update



Presentation Overview

Part 1

- ✓ Discussion of municipal bond market rates, trends and expectations

Part 2

- ✓ Financing team members and roles

Part 3

- ✓ Discussion debt sale methods and recent sale results

Part 4

- ✓ Economic development initiatives using Tax Increment Financing (TIFs)



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Part 1

Municipal Bond Market Rates, Trends and Expectations



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Federal Reserve Update

- Fed Mandate: Keep unemployment low and inflation in a 2.0% range
- Meetings: June 14-15, July 26-27, September 20-21, November 1-2, December 13-14
- Market Expectation:
 - 50bps in June and July
 - With CPI release last week another 50bps in September is expected
 - November and beyond will be data driven
- Quantitative Tightening (Money Supply Reduction):
 - Current Holdings: \$8,9000,000,000,000
 - Goal of running off \$3.9T by mid-2025
 - June: \$47.5B securities to expire (\$30B Treasury \$17.5B MBS)
 - September: \$95B securities to expire (\$60B Treasury \$35B MBS)
 - Fed did the same runoff process 2017-2019
 - In 2018 Treasury issuances were sharply increasing due to revenue declines
 - Currently tax revenues are surging
 - Mortgage Backed Securities will be difficult to passively unwind



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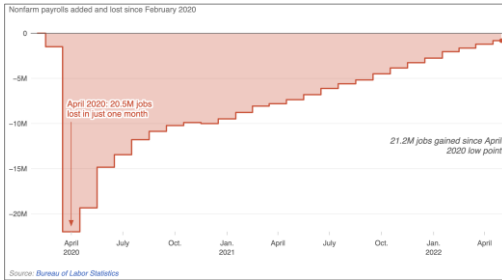
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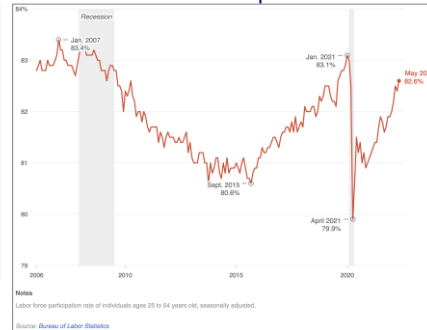
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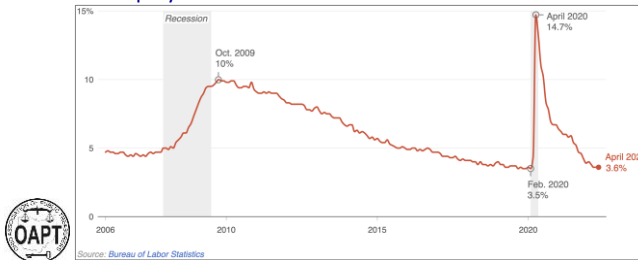
Labor Statistics



Labor Force Participation Rate



Unemployment Rate



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Labor Statistics

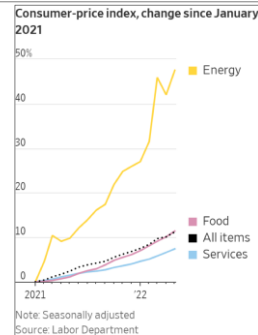
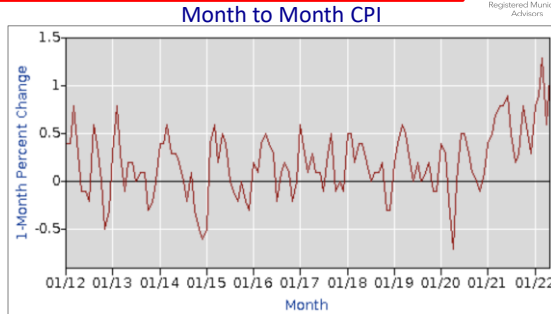


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Inflation Statistics



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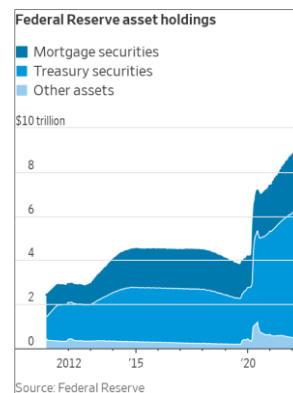
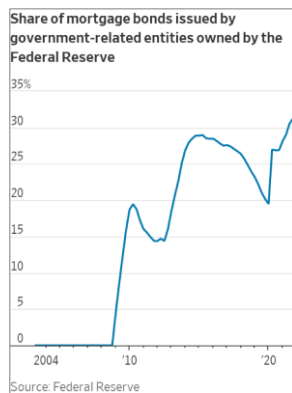
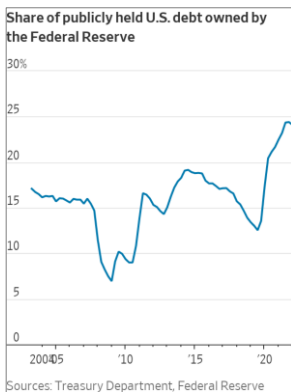
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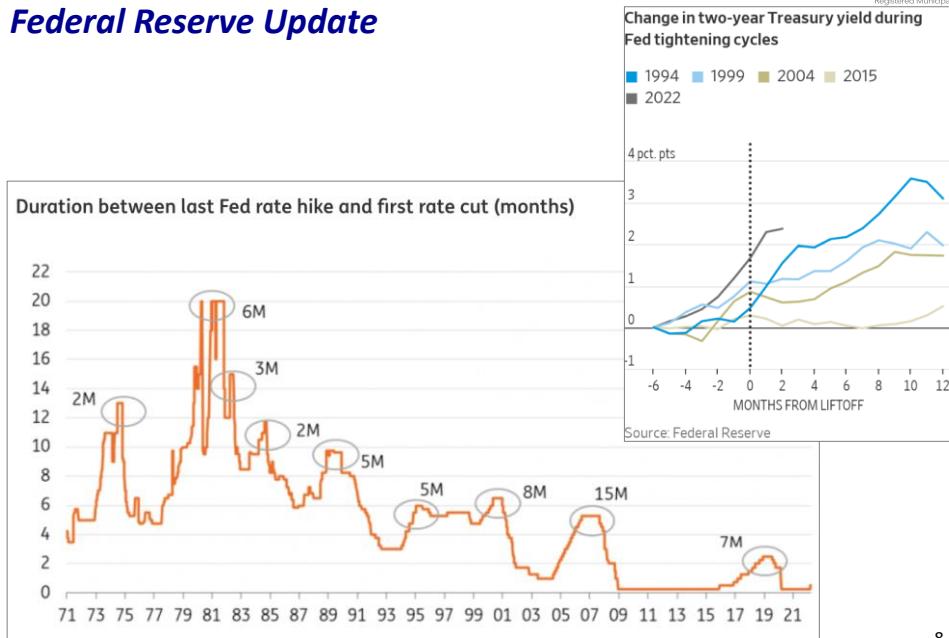
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& Associates, LLC
Registered Municipal
Advisors

Federal Reserve Update

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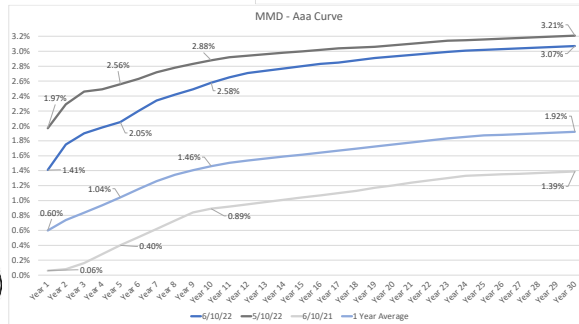
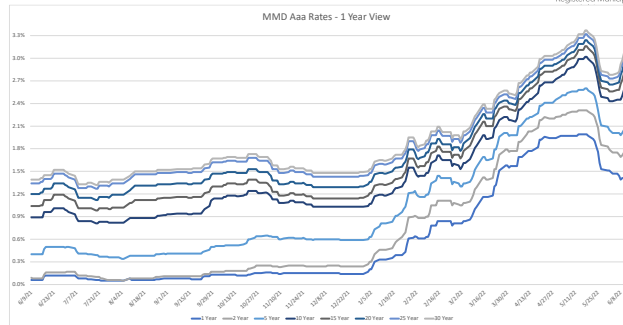
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MMD Bond Yields

MMD - Aaa Rates				
	1 Year	5 Year	10 Year	30 Year
Average Since Nov-2016	0.90%	1.22%	1.69%	2.34%
Highest Since Nov-2016	2.51%	2.60%	3.02%	3.46%
Lowest Since Nov-2016	0.05%	0.16%	0.58%	1.27%
30 Day Average	1.77%	2.35%	2.73%	3.08%
90 Day Average	1.43%	1.95%	2.25%	2.62%
1-Year High	1.99%	2.60%	3.02%	3.37%
1-Year Low	0.05%	0.34%	0.81%	1.32%
Current Rate	1.41%	2.05%	2.58%	3.07%



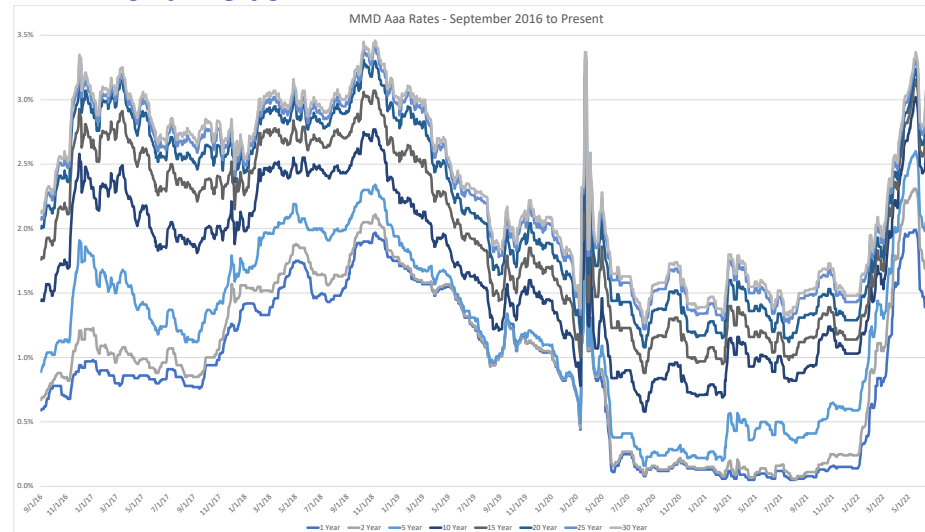
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MMD Bond Yields



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Part 2

Financing Team Members & Roles

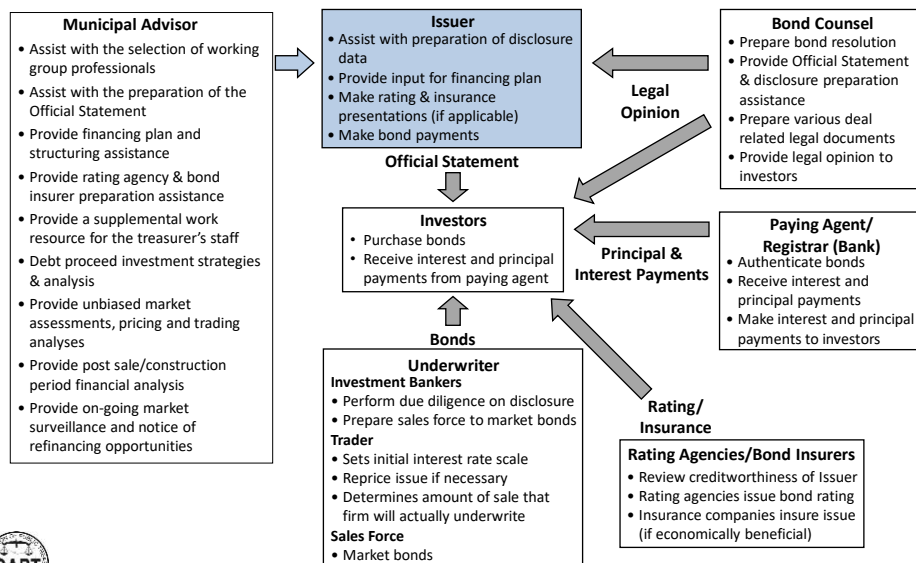


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Financing team members and roles

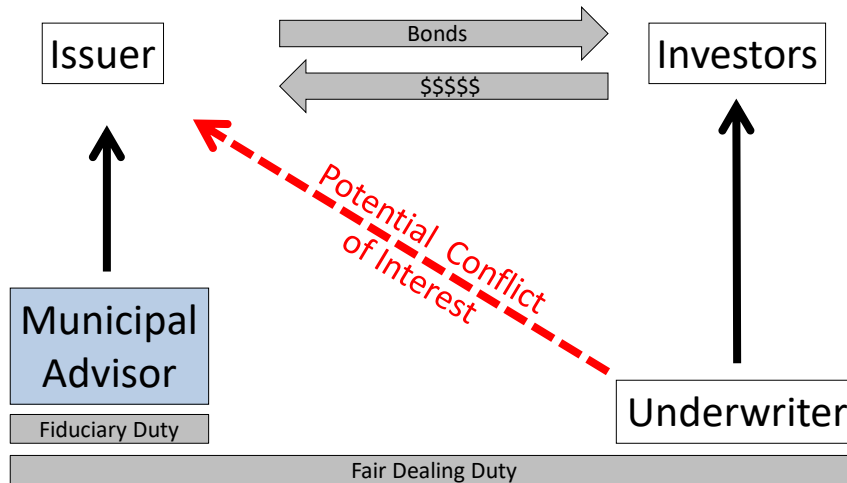


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Duties of Transaction Participants



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Team Member Selection

Issuer Decision

- Bond Counsel
- Municipal Advisor

Team Decisions

- Method of Sale
- Underwriter, if any (depends on method of sale)
- Rating Agency
- Bond Registrar
- Bond Insurer, if any
- Prior relationships important



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Questions to ask yourself

Structuring – Call Features

- Are you able to fully assess the cost/benefit of various optional call features? Investors prefer longer non-callable periods, but is that in the issuer's best interest? Does the proposed optional call feature provide the issuer reasonable flexibility to refund or restructure bonds in the future?

Structuring – Term Bonds

- Are you able to fully assess the cost/benefit of various term bond structures? Traders prefer that more maturities be termed-up, but is that in the issuer's best interest?



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Questions to ask yourself Structuring – Term Bonds

Example 1 Total Interest Cost \$36,301,958

Maturity	Type of Bond	Coupon	Yield	Maturity Value
12/01/2022	Serial Coupon	3.000%	0.900%	100,000.00
12/01/2023	Serial Coupon	4.000%	1.110%	200,000.00
12/01/2024	Serial Coupon	4.000%	1.310%	235,000.00
12/01/2025	Serial Coupon	4.000%	1.530%	260,000.00
12/01/2026	Serial Coupon	4.000%	1.650%	275,000.00
12/01/2027	Serial Coupon	4.000%	1.750%	330,000.00
12/01/2028	Serial Coupon	4.000%	1.830%	350,000.00
12/01/2029	Serial Coupon	4.000%	1.900%	370,000.00
12/01/2030	Serial Coupon	4.000%	1.940%	430,000.00
12/01/2031	Serial Coupon	4.000%	1.960%	450,000.00
12/01/2032	Serial Coupon	4.000%	1.970%	475,000.00
12/01/2033	Serial Coupon	4.000%	1.980%	540,000.00
12/01/2034	Serial Coupon	4.000%	2.000%	565,000.00
12/01/2035	Serial Coupon	3.000%	2.320%	595,000.00
12/01/2036	Serial Coupon	3.000%	2.330%	660,000.00
12/01/2037	Serial Coupon	3.000%	2.360%	690,000.00
12/01/2038	Serial Coupon	4.000%	2.090%	715,000.00
12/01/2039	Serial Coupon	4.000%	2.110%	795,000.00
12/01/2040	Serial Coupon	4.000%	2.130%	830,000.00
12/01/2041	Serial Coupon	4.000%	2.150%	870,000.00
12/01/2046	Term 1 Coupon	4.000%	2.280%	5,360,000.00
12/01/2051	Term 2 Coupon	4.000%	2.370%	7,120,000.00
12/01/2058	Term 3 Coupon	4.000%	2.550%	13,785,000.00
Total	-	-	-	\$36,000,000.00

Example 2 Total Interest Cost \$32,471,681

Maturity	Type of Bond	Coupon	Yield	Maturity Value
12/01/2022	Serial Coupon	3.000%	0.900%	765,000.00
12/01/2023	Serial Coupon	4.000%	1.110%	465,000.00
12/01/2024	Serial Coupon	4.000%	1.310%	485,000.00
12/01/2025	Serial Coupon	4.000%	1.530%	500,000.00
12/01/2026	Serial Coupon	4.000%	1.650%	520,000.00
12/01/2027	Serial Coupon	4.000%	1.750%	545,000.00
12/01/2028	Serial Coupon	4.000%	1.830%	565,000.00
12/01/2029	Serial Coupon	4.000%	1.900%	590,000.00
12/01/2030	Serial Coupon	4.000%	1.940%	610,000.00
12/01/2031	Serial Coupon	4.000%	1.960%	635,000.00
12/01/2032	Serial Coupon	4.000%	1.970%	660,000.00
12/01/2033	Serial Coupon	4.000%	1.980%	685,000.00
12/01/2034	Serial Coupon	4.000%	2.000%	715,000.00
12/01/2035	Serial Coupon	3.000%	2.320%	745,000.00
12/01/2036	Serial Coupon	3.000%	2.330%	765,000.00
12/01/2037	Serial Coupon	3.000%	2.360%	790,000.00
12/01/2038	Serial Coupon	4.000%	2.090%	810,000.00
12/01/2039	Serial Coupon	4.000%	2.110%	845,000.00
12/01/2040	Serial Coupon	4.000%	2.130%	880,000.00
12/01/2041	Serial Coupon	4.000%	2.150%	915,000.00
12/01/2046	Term 1 Coupon	4.000%	2.280%	5,150,000.00
12/01/2051	Term 2 Coupon	4.000%	2.370%	6,255,000.00
12/01/2055	Term 3 Coupon	4.000%	2.460%	5,970,000.00
12/01/2058	Term 4 Coupon	4.000%	2.550%	5,135,000.00
Total	-	-	-	\$36,000,000.00



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Questions to ask yourself

Structuring – Original Issue Premium

- Are you able to fully assess the cost/benefit of structuring the bond issue with premium capital appreciation bonds versus premium current interest bonds.
- Which is best for generating funds to pay costs of issuance?
- How much premium is too much and how best to incorporate excess premium into the debt service schedule?



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Questions to ask yourself Structuring – Original Issue Premium

Premium Current Interest Bonds (PCIB) Example

Maturity	Type of Bond	Coupon	Yield	Maturity Value
12/01/2022	Serial Coupon	3.000%	0.900%	765,000.00
12/01/2023	Serial Coupon	4.000%	1.110%	465,000.00
12/01/2024	Serial Coupon	4.000%	1.310%	485,000.00
12/01/2025	Serial Coupon	4.000%	1.530%	500,000.00
12/01/2026	Serial Coupon	4.000%	1.650%	520,000.00
12/01/2027	Serial Coupon	4.000%	1.750%	545,000.00
12/01/2028	Serial Coupon	4.000%	1.830%	565,000.00
12/01/2029	Serial Coupon	4.000%	1.900%	590,000.00
12/01/2030	Serial Coupon	4.000%	1.940%	610,000.00
12/01/2031	Serial Coupon	4.000%	1.960%	635,000.00
12/01/2032	Serial Coupon	4.000%	1.970%	660,000.00
12/01/2033	Serial Coupon	4.000%	1.980%	685,000.00
12/01/2034	Serial Coupon	4.000%	2.000%	715,000.00
12/01/2035	Serial Coupon	3.000%	2.320%	745,000.00
12/01/2036	Serial Coupon	3.000%	2.330%	765,000.00
12/01/2037	Serial Coupon	3.000%	2.360%	790,000.00
12/01/2038	Serial Coupon	4.000%	2.090%	810,000.00
12/01/2039	Serial Coupon	4.000%	2.110%	845,000.00
12/01/2040	Serial Coupon	4.000%	2.130%	880,000.00
12/01/2041	Serial Coupon	4.000%	2.150%	915,000.00
12/01/2046	Term 1 Coupon	4.000%	2.280%	5,150,000.00
12/01/2051	Term 2 Coupon	4.000%	2.370%	6,255,000.00
12/01/2055	Term 3 Coupon	4.000%	2.460%	5,970,000.00
12/01/2058	Term 4 Coupon	4.000%	2.550%	5,135,000.00
Total	-	-	-	\$36,000,000.00

Premium Capital Appreciation Bonds (PCAB) Example

Maturity	Type of Bond	Coupon	Yield	Issuance Value	Maturity Value
12/01/2022	Serial PCIB	3.000%	0.900%	805,000.00	805,000.00
12/01/2023	Serial PCIB	4.000%	1.110%	550,000.00	550,000.00
12/01/2024	Serial P-CAB	-	1,810%	55,677.25	575,000.00
12/01/2025	Serial P-CAB	-	2,030%	23,983.25	575,000.00
12/01/2026	Serial P-CAB	-	2,150%	10,327.00	575,000.00
12/01/2027	Serial PCIB	4.000%	1.750%	575,000.00	575,000.00
12/01/2028	Serial PCIB	4.000%	1.830%	595,000.00	595,000.00
12/01/2029	Serial PCIB	4.000%	1.900%	620,000.00	620,000.00
12/01/2030	Serial PCIB	4.000%	1.940%	645,000.00	645,000.00
12/01/2031	Serial PCIB	4.000%	1.960%	670,000.00	670,000.00
12/01/2032	Serial PCIB	4.000%	1.970%	700,000.00	700,000.00
12/01/2033	Serial PCIB	4.000%	1.980%	725,000.00	725,000.00
12/01/2034	Serial PCIB	4.000%	2.000%	755,000.00	755,000.00
12/01/2035	Serial PCIB	3.000%	2.320%	785,000.00	785,000.00
12/01/2036	Serial PCIB	3.000%	2.330%	810,000.00	810,000.00
12/01/2037	Serial PCIB	3.000%	2.360%	835,000.00	835,000.00
12/01/2038	Serial PCIB	4.000%	2.090%	860,000.00	860,000.00
12/01/2039	Serial PCIB	4.000%	2.110%	895,000.00	895,000.00
12/01/2040	Serial PCIB	4.000%	2.130%	930,000.00	930,000.00
12/01/2041	Serial PCIB	4.000%	2.150%	965,000.00	965,000.00
12/01/2046	Term 1 PCIB	4.000%	2.280%	5,440,000.00	5,440,000.00
12/01/2051	Term 2 PCIB	4.000%	2.370%	6,615,000.00	6,615,000.00
12/01/2055	Term 3 Discount	2.250%	2.460%	6,150,000.00	6,150,000.00
12/01/2058	Term 4 Discount	2.250%	2.550%	4,985,000.00	4,985,000.00
Total	-	-	-	\$35,999,987.50	\$37,635,000.00



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Questions to ask yourself Structuring – Original Issue Premium

Premium Current Interest Bonds (PCIB) Example

Sources & Uses

Sources Of Funds	
Par Amount of Bonds	\$36,000,000.00
Reoffering Premium	2,844,340.20
Total Sources	\$38,844,340.20
Uses Of Funds	
Deposit to Project Construction Fund	36,000,000.00
Rounding Amount	2,384,469.40
Costs of Issuance	456,819.30
Rounding Amount	3,051.50
Total Uses	\$38,844,340.20

Total Interest Cost - \$32,471,681
True Interest % - 3.47%

Premium Capital Appreciation Bonds (PCAB) Example

Sources & Uses

Sources Of Funds	
Par Amount of Bonds	\$35,999,987.50
Reoffering Premium	2,844,352.70
Total Sources	\$38,844,340.20
Uses Of Funds	
Deposit to Project Construction Fund	36,000,000.00
Deposit to Capitalized Interest Fund	2,384,469.40
Costs of Issuance	456,819.30
Rounding Amount	3,051.50
Total Uses	\$38,844,340.20

Total Interest Cost - \$28,274,799
True Interest % - 3.03%



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Questions to ask yourself

Credit Rating

- Does your bond underwriter have significant experience with the issuer's local economy to enable the banker to adequately advise issuer officials during the preparation for the credit rating presentation?

	MOODY'S	S&P Global	FitchRatings
Better (Lower) Interest Rates ↑	Aaa	AAA	AAA
	Aa1	AA+	AA+
	Aa2	AA	AA
	Aa3	AA-	AA-
	A1	A+	A+
	A2	A	A
	A3	A-	A-
	Baa1	BBB+	BBB+
	Baa2	BBB	BBB
	Baa3	BBB-	BBB-
	Ba1		
	Ba		



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Questions to ask yourself

Interest Rates

- Are you able to determine whether the interest rate scale being proposed by the underwriter is comparable other similar bond issues recently executed in Ohio?
- What variables would make the issuer's interest rates differ from others in Ohio?
- Are you certain that the comparable interest rate scale offered by the underwriter are complete and thorough or just those that result in higher rates?



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Questions to ask yourself

Fees

- Are you able to determine whether the underwriting fee is comparable with other similar bond issues recently executed in Ohio?
 - Negotiated deal underwriting fees generally range from \$4/\$1,000 to \$8/\$1,000. What factors justify higher fee?
- Are you able to determine whether other costs of issuance are comparable with other similar bond issues recently executed in Ohio?
 - Underwriter's Counsel
 - Bond Insurance Premium



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Part 3

Debt Sale Methods and Recent Sale Results



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Method of Sale Review

Negotiated Sale

- Traditional method for Ohio schools to sell bonds primarily due to par limitations of voted issues and long-time absence of municipal advisors.

Competitive Sale

- Becoming more frequent to due current interest rate market and increased number of municipal advisors in Ohio providing assistance to access the competitive market.

Direct Placement

- Significantly more popular in the wake of COVID as a way to conserve resources. Also, banks have come to appreciate the value of municipal bonds.



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Competitive Sale

- Excellent sales method for most essential purpose municipal debt (general obligation, lease-purchase, certificates of participation and revenue debt).
- Good for bonds or notes.
- Puts investment banks in competition for the bonds thereby providing the lowest financing cost available in the marketplace, not just a single bank.
- A publicly sold competitive bond is an excellent choice for financings that require repayment schedule longer than 20 years.



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Competitive Sale - Process

1. Agree on project being financed and structuring variables
2. Work with bond counsel and rest of financing team to prepare Preliminary Official Statement (POS)
3. Prepare for and conduct credit rating discussion
4. Publish POS with credit rating
5. Price debt issue about one week after POS published
6. Close within 3-4 months of beginning the process



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**Competitive Sale – Recent Results**City of Fremont
Final Bid Results - 2022 Notes

Pricing Date: Tuesday, June 7, 2022
 Dated: Tuesday, June 21, 2022
 Due: Wednesday, June 21, 2023
 Settle: Tuesday, June 21, 2022
 Par: \$1,070,000
 Bank Qualified: Yes
 Rating: None
 Underlying Rating: Aa3

Bidder	Coupon	Premium	NIC	
Piper Sandler & Co	3.000%	\$8,517.20	2.204%	Winner
First National Bank	2.370%	\$0.00	2.370%	
BNYMellon Capital Markets	3.250%	\$9,150.53	2.395%	
Fifth Third	2.700%	\$117.70	2.689%	
Oppenheimer	3.250%	\$930.00	3.163%	

- First to Cover would add \$1,776 of interest expense
- First to Last would add \$8,466 of interest expense



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**Competitive Sale – Recent Results**City of Hudson
Final Bid Results - 2021 Notes

Pricing Date: Tuesday, November 30, 2021
 Dated: Wednesday, December 15, 2021
 Due: Thursday, December 15, 2022
 Settle: Wednesday, December 15, 2021
 Par: \$9,575,000
 Bank Qualified: No
 Rating: None
 Underlying Rating: Aaa/AAA

Bidder	Coupon	Premium	NIC	
KeyBanc Capital Markets	1.000%	\$64,056.75	0.331%	Winner
Oppenheimer	1.500%	\$103,690.00	0.417%	
Piper Sandler & Co	1.500%	\$102,931.25	0.425%	
BNYMellon Capital Markets	1.500%	\$102,641.13	0.428%	
First National Bank	0.950%	\$0.00	0.950%	

- First to Cover would add \$8,240 of interest expense
- First to Last would add \$59,260 of interest expense



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Competitive Sale – Recent Results

City of Wooster Final Bid Results - 2022 Notes



Pricing Date: Tuesday, May 24, 2022
 Dated: Thursday, June 9, 2022
 Due: Friday, June 9, 2023
 Settle: Thursday, June 9, 2022
 Par: \$2,360,000
 Bank Qualified: Yes
 Rating: None
 Underlying Rating: AA

Bidder	Coupon	Premium	NIC	
First National Bank	2.270%	\$0.00	2.270%	Winner
Oppenheimer	3.000%	\$14,162.36	2.400%	
Piper Sandler & Co	3.000%	\$13,499.20	2.428%	
BNYMellon Capital Markets	3.500%	\$23,686.38	2.496%	
KeyBanc Capital Markets	2.625%	\$1,675.60	2.554%	

- A comparable competitive BAN sold one week prior
 - No Municipal Advisor – reduced distribution
 - Adjusted for market fluctuations, the comparable winning bid was \$8,800 more expensive



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Competitive Sale – Recent Results

City of Waterville Final Bid Results 2021 Bonds



Pricing Date: August 17, 2021
 Dated: September 2, 2021
 Call: December 1, 2026
 Final Maturity: December 1, 2041
 Par: \$4,570,000
 Bank Qualified: Yes
 Rating: AA

Bidder	TIC	
Piper Sandler & Co	1.276%	Winner
FHN Financial Capital Markets	1.299%	
Robert W. Baird & Co., Inc.	1.418%	
Raymond James & Associates, Inc.	1.440%	
Stifel, Nicolaus & Co., Inc.	1.496%	

- The 1.276% cover bid cost an additional \$2,030 which represents a 0.4% increase in interest expense
- The 1.496% last bid cost an additional \$80,904 which represents a 17.6% increase in interest expense



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Effective Bond Structuring in Today's Market - 2022 Update



Competitive Sale – Recent Results

Highland Heights
Final Bid Results
2022 Bonds



Pricing Date: December 16, 2021
Dated: January 6, 2022
Call: December 1, 2026
Final Maturity: December 1, 2041
Par: \$5,000,000
Bank Qualified: Yes
Rating: Aa2

Bidder	TIC	
Piper Sandler & Co	1.810%	Winner
Raymond James & Associates, Inc.	1.831%	
FHN Financial Capital Markets	1.839%	
Robert W. Baird & Co., Inc.	1.900%	
KeyBanc Capital Markets	1.926%	

- The 1.831% cover bid cost an additional \$44,487.60 which represents a 3.7% increase in interest expense
- The 1.926% last bid cost an additional \$102,620.83 which represents an 8.6% increase in interest expense.



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Effective Bond Structuring in Today's Market - 2022 Update



Competitive Sale – Recent Results

Yield Spread Comparison

Count of Positive Yield Spread									
Issuer	HIGHLAND HEIGHTS OHIO				Comparison Negotiated Sale				
Count	7				3				
Transaction Details									
Sale Date	12/16/21				12/14/21				
Call Feature	12/1/26				12/1/29				
Underwriter	PIPER SANDLER				RBC CAPITAL MKTS				
Credit Rating	Aa2				Aa1				
Bank Qualified	Yes				Yes				
Security Details	LT G.O. TAX-EXEMPT				ULT G.O. TAX-EXEMPT				
Par Amount	\$5,000,000				\$7,500,000				
Maturity	Coupon	Yield	Pricing Date	Spread to MMD	Coupon	Yield	Pricing Date	Spread to MMD	MMD Spread Difference
2022					2.00%	0.30%	0.20%	0.10%	
2023	3.00%	0.40%	0.25%	0.15%	3.00%	0.41%	0.25%	0.16%	0.01%
2024	3.00%	0.55%	0.36%	0.19%	3.00%	0.55%	0.36%	0.19%	0.00%
2025	3.00%	0.70%	0.48%	0.22%	3.00%	0.70%	0.48%	0.22%	0.00%
2026	3.00%	0.80%	0.60%	0.20%	3.00%	0.85%	0.60%	0.25%	0.05%
2027	2.00%	0.90%	0.75%	0.15%	3.00%	1.02%	0.75%	0.27%	0.12%
2028					3.00%	1.15%	0.87%	0.28%	
2029	2.00%	1.10%	0.95%	0.15%	3.00%	1.25%	0.95%	0.30%	0.15%
2030									
2031	2.00%	1.20%	1.03%	0.17%	3.00%	1.34%	1.03%	0.31%	0.14%
2032									
2033	2.00%	1.30%	1.08%	0.22%	3.00%	1.39%	1.08%	0.31%	0.09%
2034									
2035	2.00%	1.40%	1.12%	0.28%	3.00%	1.44%	1.12%	0.32%	0.04%
2036									
2037	2.00%	1.60%	1.17%	0.43%	3.00%	1.48%	1.17%	0.31%	-0.12%
2038	2.00%	1.75%	1.20%	0.55%					
2039	2.00%	1.90%	1.23%	0.67%	3.00%	1.56%	1.23%	0.33%	-0.34%
2040									
2041	2.00%	2.00%	1.29%	0.71%	3.00%	1.62%	1.29%	0.33%	-0.38%
2042									
2043					3.00%	1.68%	1.35%	0.33%	
2044					3.00%	1.79%	1.41%	0.38%	
2045									
2046									
2047									
2048					3.00%	1.95%	1.45%	0.50%	

- As a bid this comparable sale would calculate as a 2.346% TIC
- The additional cost would be \$552,655 of debt service over the winning scale which represents an 8.9% increase in total debt service
- Highland Heights has a lower credit rating and shorter call feature, both factors should result in higher interest rates



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Effective Bond Structuring in Today's Market - 2022 Update



Competitive Sale – Recent Results

Greene County - Sales Tax Revenue
Final Bid Results
2022 Bonds



Pricing Date: April 27, 2022
Dated: May 11, 2022
Call: December 1, 2027
Final Maturity: December 1, 2052
Par: \$30,195,000
Bank Qualified: No
Rating: Aa1

Bidder	TIC	
Robert W. Baird & Co., Inc.	3.962%	Winner
Citigroup Global Markets Inc.	3.984%	
KeyBanc Capital Markets	4.043%	

- The second most expensive bid would add \$373,442 of total debt service
- The most expensive bid would add \$558,276 of total debt service



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Effective Bond Structuring in Today's Market - 2022 Update



Yield Spread Comparison

		Count of Positive Yield Spread							
Issuer	GREENE CNTY OHIO SALES TAX RCP					Comparison Negotiated Sale			
Count	9				22				
Transaction Details									
Sale Date	4/28/22				4/29/22				
Call Feature	12/1/27				12/1/31				
Underwriter	ROBERT W BAIRD & CO, INC				KEYBANC CAPITAL MARKETS				
Credit Rating	Aa1				AAA				
Bank Qualified	No				No				
Security Details	REV TAX-EXEMPT				REV TAX-EXEMPT				
Par Amount	\$30,195,000				\$85,000,000				
Maturity	Coupon	Yield	Pricing Date MMD	Spread to MMD	Coupon	Yield	Pricing Date MMD	Spread to MMD	MMD Spread Difference
2022					5.00%	1.90%	1.63%	0.27%	
2023	8.00%	2.25%	1.94%	0.31%	5.00%	2.18%	1.94%	0.24%	-0.07%
2024	8.00%	2.45%	2.20%	0.25%	5.00%	2.35%	2.22%	0.13%	-0.12%
2025	8.00%	2.55%	2.34%	0.21%	5.00%	2.45%	2.36%	0.09%	-0.25%
2026	8.00%	2.65%	2.37%	0.28%	3.00%	2.50%	2.39%	0.11%	-0.17%
2027	8.00%	2.75%	2.43%	0.32%	5.00%	2.57%	2.45%	0.12%	-0.20%
2028	4.00%	2.80%	2.48%	0.32%	5.00%	2.66%	2.50%	0.16%	-0.16%
2029	3.00%	3.00%	2.55%	0.45%	5.00%	2.77%	2.57%	0.20%	-0.25%
2030	3.00%	3.10%	2.60%	0.50%	5.00%	2.85%	2.62%	0.23%	-0.27%
2031	3.13%	3.15%	2.65%	0.50%	5.00%	2.93%	2.67%	0.26%	-0.24%
2032	3.13%	3.20%	2.70%	0.50%	5.00%	2.97%	2.72%	0.25%	-0.25%
2033	3.25%	3.35%	2.74%	0.61%	5.00%	3.05%	2.76%	0.29%	-0.32%
2034	3.38%	3.45%	2.77%	0.68%	5.00%	3.09%	2.78%	0.31%	-0.37%
2035	3.50%	3.55%	2.80%	0.75%	5.00%	3.15%	2.80%	0.35%	-0.40%
2036	3.50%	3.60%	2.82%	0.78%	5.00%	3.15%	2.82%	0.33%	-0.45%
2037	3.63%	3.65%	2.84%	0.81%	5.00%	3.17%	2.84%	0.33%	-0.48%
2038	3.63%	3.70%	2.86%	0.84%	5.00%	3.21%	2.86%	0.35%	-0.49%
2039	3.75%	3.75%	2.88%	0.87%	5.00%	3.26%	2.88%	0.38%	-0.49%
2040	3.75%	3.80%	2.89%	0.91%	5.00%	3.30%	2.89%	0.41%	-0.50%
2041					5.00%	3.31%	2.90%	0.41%	
2042	4.00%	3.80%	2.92%	0.88%	5.00%	3.33%	2.92%	0.41%	-0.47%
2043									
2044	4.00%	3.90%	2.96%	0.94%	5.00%	3.37%	2.96%	0.41%	-0.53%
2045									
2046									
2047	4.00%	4.00%	3.00%	1.00%	5.00%	3.43%	3.00%	0.43%	-0.57%
2048									
2049									
2050									
2051									
2052	4.00%	4.05%	3.05%	1.00%	5.00%	3.51%	3.05%	0.46%	-0.54%
2053									
2054									
2055									
2056									
2057									
2058					5.00%	3.63%	3.05%	0.58%	

Underwriter Cost Comparison

- Greene County \$20.20
- Comparison \$4.50

Negotiated Scale Comparison

Sale Type Details			
Issuer	Greene County	Comparison Sale	
Sale Type	Competitive	Negotiated	
Sale Date	4/28/22	4/29/22	
		(Adjusted to 4/28/2022)	
Credit Rating	Aa1	AAA	
Call Feature	12/1/27	12/1/31	
Bank Qualified	No	No	
Security Details	Rev Tax-Exempt	Rev Tax-Exempt	
Bid Comparison			Difference
TIC	3.97%	4.31%	
PAR	\$30,195,000	\$30,000,000	0.34%
Bond Retirement Fund	\$2,758	\$2,146,183	
Total Debt Service	\$52,345,013	\$57,604,556	
Net Borrowing Cost	\$22,147,256	\$25,458,373	\$3,311,117
Annual Debt Service Comparison			Difference
Average Debt Service	\$1,688,549	\$1,858,211	\$169,663

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Direct Placements

- Popular for bonds that have short final maturity
 - Target range of 15 years or less, possible out to 20 years)
- Can save on issuance costs
 - No credit rating or Preliminary Official Statement Necessary
- Effective method general obligation and lease-purchase debt
- Tradeoff is potentially higher interest rate due to single investor
- Be careful about interest rate adjustment clauses based on tax rate changes and reporting requirements



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Direct Placement - Process

1. Agree on project being financed and structuring variables
2. Municipal advisor prepares term sheet for banks to respond to with bids
3. Issuer must distribute term sheet to list of banks likely to bid (provided by municipal advisor)
4. Bids are received within 2-3 weeks of term sheet distribution
5. Winner selected
6. Close within 5-6 weeks of term sheet distribution



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Effective Bond Structuring in Today's Market - 2022 Update

**Direct Placement – Recent Results**

\$2,430,000
 Village of Wellington, Lorain County, Ohio
 Police Station Improvement Bonds, Series 2022
 (Limited Tax, General Obligation)
 Direct Placement

**Final Bid Results**

Pricing Date: 3/31/22
 Dated: 4/12/22
 Final Maturity: 1/1/37
 Par: \$2,430,000
 Bank Qualified: Yes

Bidder	Interest Rate	Call Feature	
JP Morgan Chase Bank	2.48%	7/1/26	Selected Option
JP Morgan Chase Bank	2.21%	Non-callable	
Key Government Finance	2.89%	Callable Anytime	
Capital One Public Finance	3.08%	6/1/26	



- The last bid would add \$120,328 of total debt service

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Effective Bond Structuring in Today's Market - 2022 Update

**Direct Placement – Recent Results****Findlay City Schools**

\$6,000,000 Permanent Improvement Levy Tax Anticipation Notes, Series 2021

Bid Results

4/13/21

Final Maturity 10 years

Bidder	Callable	Non-callable	Expenses	
Key Government Finance, Inc.	1.448%	N/A	\$0	Selected Option
Vectra Bank	1.670%	N/A	\$0	
Capital One Public funding	1.740%	1.680%	\$0	
Truist Bank	1.890%	N/A	\$3,000	
Farmers Bank	2.085%	1.985%	\$0	
Huntington Bank	2.150%	2.05%	\$3,000	



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Effective Bond Structuring in Today's Market - 2022 Update

**Direct Placement – Recent Results****Erie County, Ohio****\$1,340,000 Public Infrastructure Improvement General Obligation Refunding Bonds, Series 2021****Bid Results****5/6/21****Final Maturity 15 years**

Results Sorted by Average Annual Debt Service					
Bidder	Adjusted TIC	Ave. Annual Debt Service	Term/Call Feature	Total Debt Service	
Key Government Finance, Inc.	2.17%	\$104,212	15yr Callable 12/1/26	\$1,563,177	Selected Option
Key Government Finance, Inc.	2.14%	\$104,085	15yr Non-callable	\$1,561,269	
Capital One Public Funding, LLC	2.24%	\$104,692	15yr Callable 12/1/26	\$1,570,377	
Capital One Public Funding, LLC	2.04%	\$103,320	15yr Non-callable	\$1,549,807	
Truist (Formerly BB&T)	2.24%	\$105,172	BQ 15yr Callable 12/1/28	\$1,566,263	
Truist (Formerly BB&T)	2.35%	\$104,418	NBQ 15yr Callable 12/1/28	\$1,577,576	
Huntington Bank	2.67%	\$107,640	15yr Callable 12/1/26	\$1,614,601	
Huntington Bank	2.42%	\$105,926	15yr Non-callable	\$1,588,889	



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**Direct Placement – Recent Results****Auburn Township, Ohio****\$3,923,000 Refunding Bonds for 2011 USDA Fire Station Loan and****2016 Service Garage Construction Bonds, Series 2021****Bid Results****5/13/21****Final Maturity 20 years**

Bidder	Callable	Non-callable	Expenses	
Middlefield Banking Company	1.600%	N/A	\$0	Selected Option



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Direct Placement – Recent Results

City of Oberlin, Ohio

\$5,385,000

Various Purpose and Refunding General Obligation Bonds, Series 2021

Bid Results

6/2/21

Final Maturity 10 years

Bidder	Adjusted TIC	Term/Call Feature	
Key Government Finance, Inc.	1.251%	Callable 6/1/26	Selected Option
Capital One Public Funding, LLC	1.64%	Non-callable	
Chase Bank	1.69%	Non-callable	
Chase Bank	1.74%	Callable 6/1/26	
Sterling Bank	1.87%	Callable 6/1/26	
First National Bank	1.89%	Callable 6/1/26	



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Part 4

Tax Increment Financing

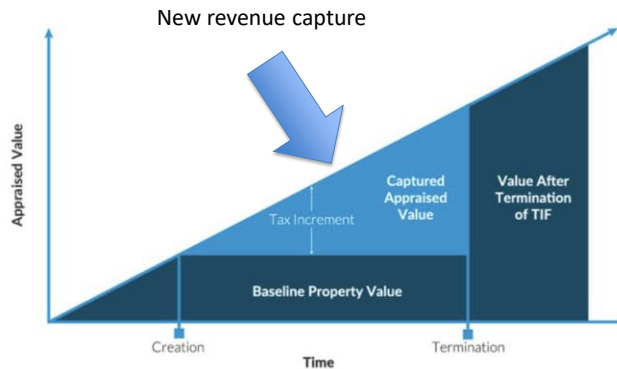


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What is Tax Increment Financing (TIF)



- Utilizes revenues generated from higher valuations of new projects to support fund infrastructure
- Revenues generated are based on the increment between pre and post-project valuations
- New revenues are paid in form of payments in lieu of taxes (PILOTs), to the entity that established the TIF
- Baseline tax collection continues in order to safeguard current service delivery
- City utilizes TIF revenue to fund various items, typically infrastructure, to support development



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Types of TIFs

- **Parcel TIF:**
 - Entity enumerates parcels for inclusion
 - Each parcel is on its own definitive timeline based on development that occurs
 - Investments must benefit the parcels exempted from taxation
- **Incentive District TIF:**
 - District inclusive of up to 300 contiguous acres
 - Proceeds can be used to fund projects that benefit the district as a whole, rather than any specific parcel
- **Urban Redevelopment TIF (Section 41):**
 - Allows for greater flexibility for use of TIF proceeds including private uses (investment into the project itself)
 - Proceeds must be used for urban redevelopment purposes
 - Entity must be in the chain of title



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TIF Basics:

- **Term:**
 - Up to 10-ys / 75% abatement w/o School Board consent
 - Up to 30-ys / 100% abatement w/ School Board consent
- **Financial Impact:**
 - Only affects NEW revenues once the proposed project is completed
 - Existing baseline taxes (and payees) all remain unaffected
 - Income tax sharing: if proposed annual payroll exceeds \$1M from the new project, city/School District must agree on an income tax sharing arrangement
 - Payments in lieu of taxes (PILOTs) represent amount of tax that would have been charged if not for the TIF. This amount can also be negotiated between the entity and developer to meet certain financial criteria
 - Compensation agreement laying out the new tax share must be filed as part of a longer TIF
 - PILOTs are utilized to fund public (or in case of .41 – private) infrastructure deemed necessary to complete the project.
- **Types of Development:**
 - TIFs are traditionally utilized for commercial or mixed-use development. Residential is possible, but takes additional work with legal counsel to ensure eligibility



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Advantages of Utilizing a TIF

- Establishes a revenue source to fund necessary improvements that might have otherwise been an impediment to development
- Shifts costs of improvements to the private developer rather than the public entity
- Results in increased tax revenues for the School District in short and long-term (reduced new revenues now are better than \$0)
- Recent Study from the Vermont League of Cities and University of Wisconsin found the following:
 - TIFs increase tax revenues and tax valuations in the long-run
 - TIFs led to an increase in private investment
 - Development is not inevitable – more of than not the existence of the TIF was the main factor as to why development was completed



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Funding Strategies for TIF Projects

- **"Pay as you go":** Entity utilizes annual PILOT revenues from the TIF to pay for projects in real time. Annual collections fund that year's capital projects.
 - Limits total investment to what's available in a given fiscal year.
 - However, reduces interest costs in long-run and reduces default risk if development fails
- **Municipal Bonds:** Entity utilizes PILOT revenues to fund debt service payments in support of a municipal bond to fund investment (public or private).
 - Typically utilizing a form of private activity bond (industrial development bonds or revenue bonds)
 - Leverage future TIF PILOTs to fund the debt service (work with your advisor and bond counsel to determine if other revenue pledges might make sense)
 - Increase total investment in the near-term
 - Introduce higher interest costs and default risk in the long-term



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TIF backed Revenue Bond Considerations

Repayment Sources

- Debt secured and repaid utilizing PILOTs
- Non-tax revenues – Determine whether GO pledge is necessary

Term and Structure

- Typically, can go up to 30-years to match the term of the TIF
- Method of sale or project specifics will likely determine desired term

Taxable Status

- Taxable status driven by the use of proceeds and the repayment source
- Can be tax-exempt if repayment is funded with service payments only

Capacity Impact

- Cost benefit of managing capacity limitations along with risks/costs of incorporating a GO-pledge of revenue

Use of Funds

- Use is driven by the type of TIF district being utilized

Backstop

- Service Payment Agreement is often recorded with the County and subject to ownership transfer. Additionally, accelerated repayment language can be negotiated with developer in event of default/project failure

Method of Sale

- Typically determined based the project specifics (term, desired cash flows, existing relationships, developer notoriety, project size)

- TIF projects typically utilize a form of revenue bonds, where the debt service is supported via TIF proceeds generated by the project's new valuation.
- Variables such as pledging general tax revenues or the full-faith and credit of the city can enhance the security, but impact debt capacity calculations
- Sale method (public sale vs direct placement) based on specific of the terms – direct placement chosen to facilitate successful sale
- Section .41 allows the bond proceeds to be utilized for private activities. This does eliminate the tax-exempt advantage of typical municipal securities.



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Revenue Bonds vs. General Obligation (GO) Bonds

Revenue Bonds

Purpose: Bonds that are supported by non-tax revenue (utilities, development projects)

Pros:

- Flexibility in managing capacity
- Less Restrictions in structuring and terms
- Flexibility in method of sale

Cons:

- Higher interest rate due to less secure repayment source
- Often federally taxable, higher interest costs
- Often unrated, can lead to higher interest costs

General Obligation Bonds

Purpose: Bonds issued to pay for general capital projects backed by ad valorem taxes of the issuer. "Full faith and credit"

Pros:

- Security of repayment leads to lower interest costs
- Often tax-exempt, lower interest costs
- Often rated, can result in lower interest costs

Cons:

- Counted against indebtedness capacities
- More restrictive, less flexibility
- May need voter approval, depending on size



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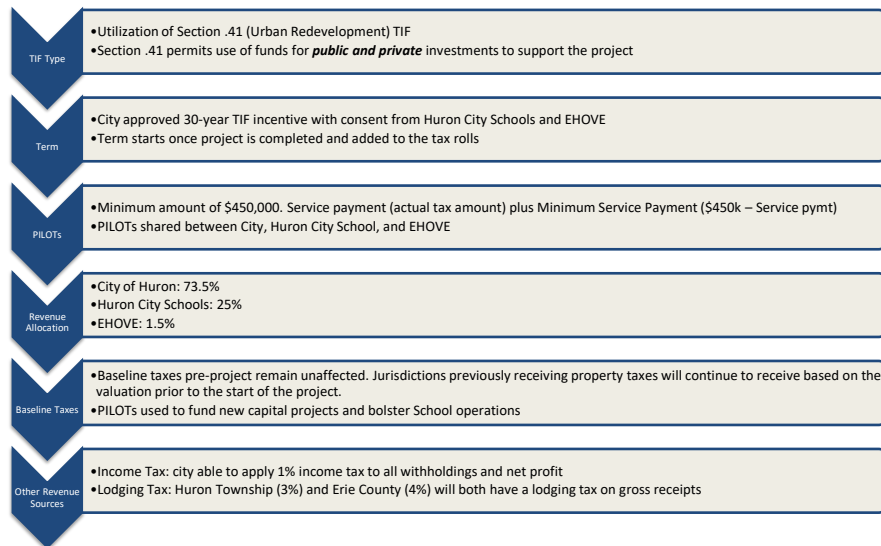


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Municipal Redevelopment TIF (Section 41)



.41 TIF allows proceeds from the project to fund **both public and private investments** to serve the project generating the TIF revenues, in addition to public investments under a parcel TIF



City can act as conduit financing arm for developer to provide supplemental capital at competitive municipal rates – Utilizing bonding capacity to help fund any private gaps



City can issue municipal bonds on behalf of the developer to fund private improvements utilizing non-tax revenue backed development bonds



The City pays the debt service with the PILOT payments received from the developer, same as a traditional public infrastructure TIF



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PILOT Payment Distributions

City of Huron (73.5% of TIF proceeds):

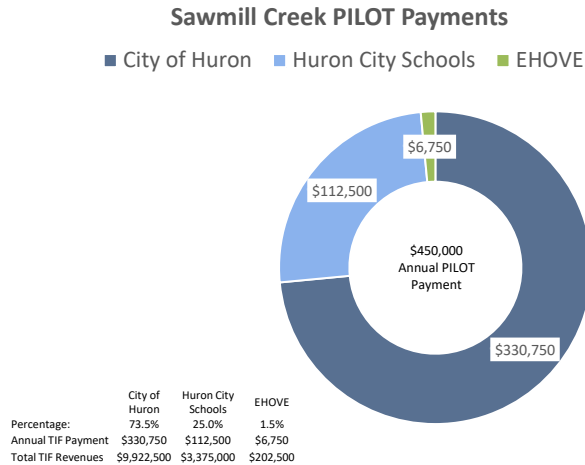
- \$330,750 per year
- \$9.92M over life of TIF

Huron City Schools (25% of TIF Proceeds):

- \$112,500 per year
- \$3.375M over life of TIF

EHOVE (1.5% of TIF Proceeds):

- \$6,750 per year
- \$202,500 over life of TIF

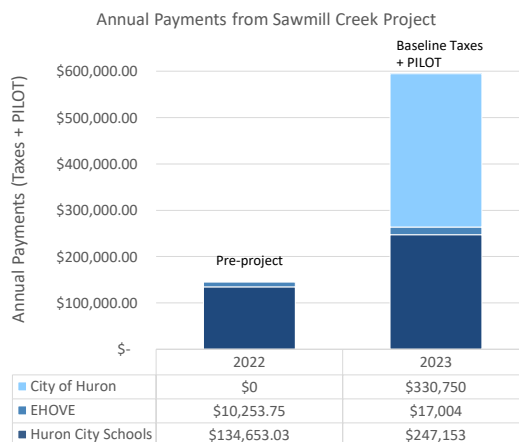


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Effective Bond Structuring in Today's Market - 2022 Update



- Huron City Schools and EHOVE see net increases in revenue:
 - Baseline tax remains in place
 - Additional revenue from compensation agreement



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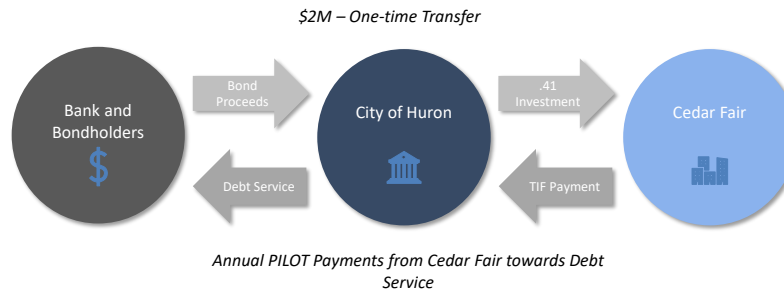
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Effective Bond Structuring in Today's Market - 2022 Update



Section .41 TIF Flow of Funds



- City of Huron issues \$2M revenue backed development bond
- Proceeds routed to Cedar Fair upon closing
- Cedar Fair Makes annual TIF Payments to subsidize debt service
- City Utilizes TIF Payments to repay debt service to bank/bondholders



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Effective Bond Structuring in Today's Market - 2022 Update



Cash Flow Analysis for 10,15,20 yr. Revenue Bonds

Each 5-year increment reduces aggregate remaining cash by roughly \$300k

Considerations on Term:

- **Shorter term:** lower interest cost. Higher % of cash dedicated toward .41 repayment.
- **Longer term:** higher interest cost. More cash available earlier in project for other capital projects

Maturity	Section 41 10-Year		Section 41 15-Year		Section 41 20-Year	
	41 D/S	Remaining	41 D/S	Remaining	41 D/S	Remaining
12/1/23	\$260,750	\$70,000	\$197,359	\$133,391	\$163,969	\$166,781
12/1/24	\$263,400	\$67,350	\$196,275	\$134,475	\$163,150	\$167,600
12/1/25	\$261,000	\$69,750	\$196,600	\$134,150	\$165,000	\$165,750
12/1/26	\$263,400	\$67,350	\$196,713	\$134,038	\$166,625	\$164,125
12/1/27	\$265,400	\$65,350	\$196,613	\$134,138	\$163,025	\$167,725
12/1/28	\$262,000	\$68,750	\$196,300	\$134,450	\$164,425	\$166,325
12/1/29	\$263,400	\$67,350	\$195,775	\$134,975	\$165,600	\$165,150
12/1/30	\$264,400	\$66,350	\$195,038	\$135,713	\$166,550	\$164,200
12/1/31	\$265,000	\$65,750	\$194,088	\$136,663	\$162,275	\$168,475
12/1/32	\$265,200	\$65,550	\$192,925	\$137,825	\$163,000	\$167,750
12/1/33	\$0	\$330,750	\$196,550	\$134,200	\$163,500	\$167,250
12/1/34	\$0	\$330,750	\$194,750	\$136,000	\$163,775	\$166,975
12/1/35	\$0	\$330,750	\$192,738	\$138,013	\$163,825	\$166,925
12/1/36	\$0	\$330,750	\$195,513	\$135,238	\$163,650	\$167,100
12/1/37	\$0	\$330,750	\$192,863	\$137,888	\$163,250	\$167,500
12/1/38	\$0	\$330,750	\$0	\$330,750	\$162,625	\$168,125
12/1/39	\$0	\$330,750	\$0	\$330,750	\$166,775	\$163,975
12/1/40	\$0	\$330,750	\$0	\$330,750	\$165,475	\$165,275
12/1/41	\$0	\$330,750	\$0	\$330,750	\$163,950	\$166,800
12/1/42	\$0	\$330,750	\$0	\$330,750	\$167,200	\$163,550
12/1/43	\$0	\$330,750	\$0	\$330,750	\$0	\$330,750
12/1/44	\$0	\$330,750	\$0	\$330,750	\$0	\$330,750
12/1/45	\$0	\$330,750	\$0	\$330,750	\$0	\$330,750
12/1/46	\$0	\$330,750	\$0	\$330,750	\$0	\$330,750
12/1/47	\$0	\$330,750	\$0	\$330,750	\$0	\$330,750
12/1/48	\$0	\$330,750	\$0	\$330,750	\$0	\$330,750
12/1/49	\$0	\$330,750	\$0	\$330,750	\$0	\$330,750
12/1/50	\$0	\$330,750	\$0	\$330,750	\$0	\$330,750
12/1/51	\$0	\$330,750	\$0	\$330,750	\$0	\$330,750
12/1/52	\$0	\$330,750	\$0	\$330,750	\$0	\$330,750
Total:	\$2,633,950	\$7,288,550	\$2,930,097	\$6,992,403	\$3,287,644	\$6,634,856



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City Utilization of TIF Proceeds

— Years 1 – 15:

- \$190,000 per year: Debt Service on \$2M revenue bond for first 15 years
- \$130,000 per year: Debt Service on \$1.5M for capital improvement projects along US 6

— Years 16-30:

- \$330,000 per year: Debt Service on \$3-4M revenue bond for utility expansion, property acquisition, and transportation improvements.



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Summary

- *Still in an era of historically low interest rates*
- *Little indication that rates will rise significantly in the near future*
- *Bond insurance is a useful tool under special circumstances*
- *Advance refundings may be returning*
- *Competitive debt sales produce excellent results*
- *Direct placements are a useful tool to raise capital expeditiously and with reduced costs*
- *Be sure to fully understand allowable uses of ARPA funds*
- *Understanding impact of ESG on muni bonds is important*
- *Green bonds are on the rise*
- *Be careful if requested to provide voluntary disclosures*



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Thank You



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