501(c)(3) Financing Alternatives and Current Refunding Opportunities

May 2015

VEHBFA

The PFM Group
Public Financial Management, Inc.
PFM Asset Management LLC
PFM Advisors

There are a variety of financing structures available to borrowers in the current market

Fixed Rate

Public Offering:
- *Natural Fixed Rate Bonds*
- Put Bonds

Private Placement:
- *Fixed Rate Bank Loan / Direct Purchase*

Variable Rate

Public Offering:
- *Variable Rate Demand Bonds*
- Floating Rate Notes (SIFMA / LIBOR)
- Other Variable Rate Structures:
  - Windows; VROs; R-Floats, etc.

Private Placement:
- *Variable Rate Bank Loan / Direct Purchase*

Conversion to Synthetic Fixed/Variable via Interest Rate Swaps

- **Variable-to-Fixed** and **Fixed-to-Variable** swaps can be used to achieve desired interest rate mode

Represents the structures most frequently used by VEHBFA borrowers.

VEHBFA Financings Since 2012

Primarily Bank Loans

Healthcare

- **2015:** University of Vermont Medical Center *(Bank Loan/Direct Purchase)*
- **2014:** Gifford Medical Center *(Bank Loan/Direct Purchase)*
- **2013:** Rutland Regional Medical Center *(Bank Loan/Direct Purchase)*
- **2013:** Fletcher Allen Health Care *(Bank Loan/Direct Purchase)*
- **2012:** Northwestern Medical Center *(Bank Loan/Direct Purchase)*

Education

- **2014:** Champlain College (Bank Loan/Direct Purchase)
- **2014:** Landmark College (Bank Loan/Direct Purchase)
- **2014:** Stratton Mountain School (Bank Loan/Direct Purchase)
- **2013:** Norwich University (Private Placement)
- **2013:** Champlain College (Bank Loan/Direct Purchase)
- **2012:** Lake Champlain Waldorf School (Private Placement)
- **2012:** St. Michael's College (Fixed Rate Bonds)
- **2012:** Middlebury College (Fixed Rate Bonds)

Only Fixed Rate Public Bond Issues

Bank Lending Market

Bank lending market

- Many institutions that have traditionally borrowed through public offerings of fixed or variable rate debt are using **Bank Lending** for some of their debt

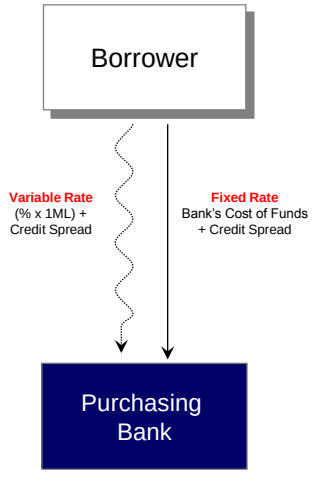
Recent Growth in the Bank Lending Market:

- From 2010 to 2013, bank holdings of municipal securities and loans **doubled**
  - $200 billion at the beginning of 2010 to $425 billion at the end of 2013 [1]
  - Over the same period, outstanding balance of bank supported VRDBs declined $186 billion
- Banks are lending in almost all municipal segments (including the 501(c)(3) organizations)

Source: "Growth of Bank Loans and Private Placements Increases Risk and Reduces Transparency in the Municipal Market (Moody's, October 16, 2014)

Bank lending structure overview

- **Interest Reset Procedure:**
  - *Fixed* : Bank's Tax-exempt Cost of Funds + Credit Spread
  - *Variable*: (65-75% x 30-day LIBOR) + Credit Spread
- **Term/Amortization:**
  - Up to 20-30 year amortization
  - 3-15 year term, usually (bank put)
  - Negotiate extension or refinance at or before end of term
- **Prepayment Provisions:**
  - *Fixed*: Varies, "Make Whole", % of outstanding par
  - *Variable*: Callable anytime at par, usually
- **Liquidity Support:** Because bonds do not have a periodic put feature, external liquidity is not necessary; but, issuers need to manage the rollover process



Bank Lending / Direct Purchases

Why are borrowers considering Bank Lending at this time?

Structural Features:

- **No credit ratings** required
- **No debt service reserve fund** required, even for "BBB" or non-rated credits
- **Fixed or variable rate** structures available
- **Taxable or tax-exempt**
- **Longer tenors** than available in the LOC/SBPA market
- **"Draw down" structures available**
- Relative to VRDBs, direct loans generally carry fewer risks

Bank Lending / Direct Purchases

Why are borrowers considering Bank Lending at this time?

Other Considerations:

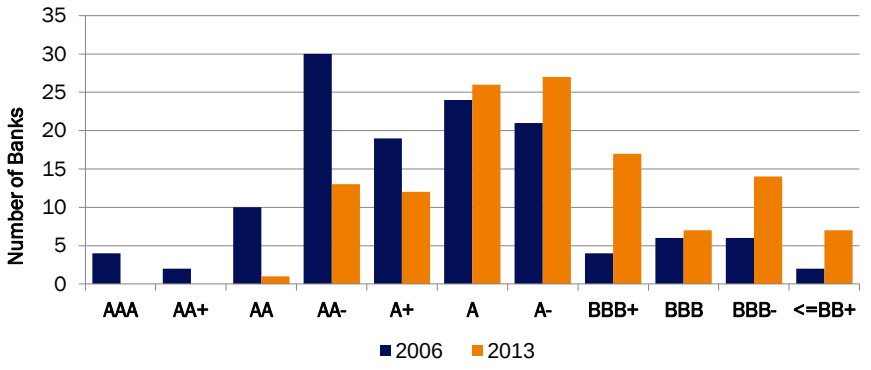
- **Strong demand from banks** in current market
- **No formal disclosure document** – e.g. Appendix A
- **Lower issuance costs** than a public offering – no credit rating or underwriting
- **Alternative to VRDBs** and other variable rate debt structures → useful for borrowers with existing underwater swaps

Bank Lending / Direct Purchases

Why are borrowers considering Bank Lending at this time?

Other Considerations (continued):

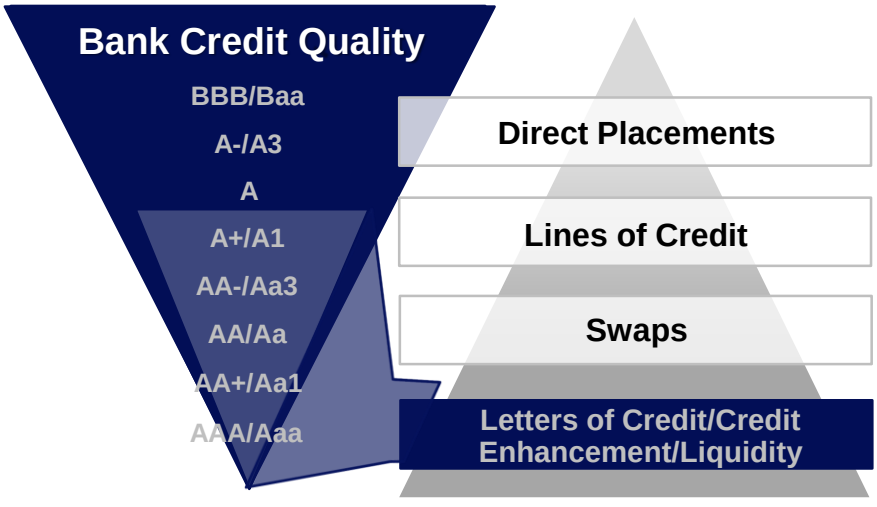
- **Large universe of potential lenders** as no minimum rating required to provide credit - unlike LOCs



1. *Lowest rating of Standard & Poor's, Moody's and Fitch shown. Chart labels show Standard & Poor's ratings for simplicity.*
2. *Source: Bloomberg Finance*

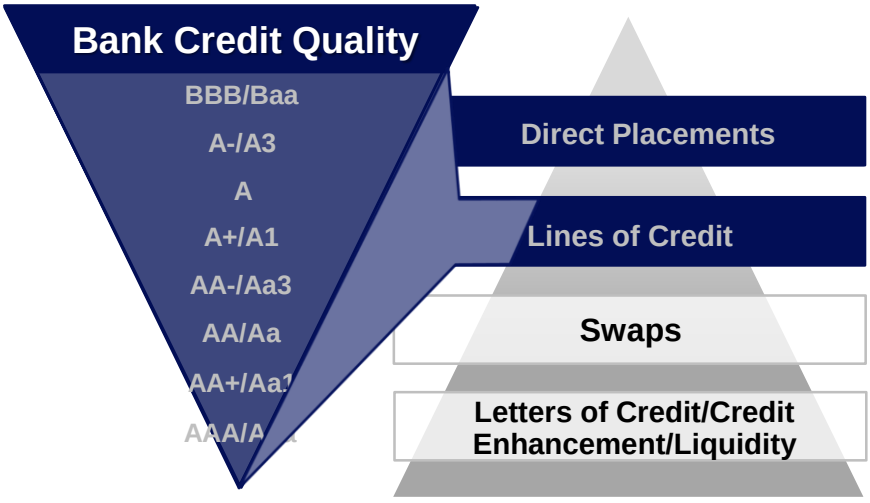
Hierarchy of Credit

High credit ratings required for LOCs/SBPAs



Hierarchy of Credit

High credit ratings not a requirement for Bank Lending



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Rating Agency Perspective on Bank Lending / Direct Purchases

Bank Loans can increase public bondholder credit risk

- Bank Lenders sometimes have **stronger rights and remedies than public bondholders** → e.g. acceleration rights

- As a result, the agencies will review:
  - **cures** for non-payment defaults that result in acceleration;
  - whether **cross defaults** permits other lenders to also accelerate;
  - **liquidity** of borrower to manage acceleration.

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Rating Agency Perspective on Bank Lending / Direct Purchases (continued)

Disclosure & transparency

- Bank Loans **do not have the same public disclosure requirements as public bond offerings**; financial disclosures are of course still required

- Rating agencies want the opportunity to review and comment on bank loan documents **before the documents are finalized and the transaction closes** → Bank loans are an important component of an issuer's underlying rating
  - No surprises
  - S&P has said that failure to disclose the bank loans "could color [their] assessment of management and have negative rating implications"

Rating Agency Perspective on Bank Lending / Direct Purchases (continued)

- For additional information on rating agency views of Bank Lending/Direct Purchases:

"Growth of Bank Loans and Private Placements Increases Risk and Reduces Transparency in the Municipal Market (Moody's, October 16, 2014)

"Not All Loans Are Equal: Some Terms and Conditions That Make Disclosure Critical in Evaluating Credit Risk" (S&P, July 23, 2014)

Business & Legal Terms

- The terms of Direct Purchase bonds can be more restrictive that the terms of traditional bond offerings → **it is crucial to carefully review the loan documents with your lawyer and financial advisor**

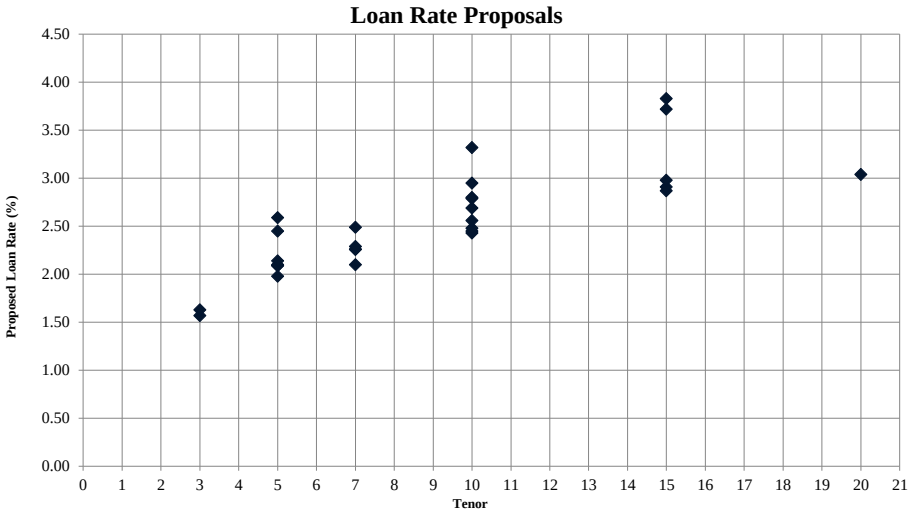
- Based on our experience, we would suggest paying particular attention to the following business and legal terms (this is not a comprehensive list):
  - ***Loan Rate*** – is the fixed rate based on the bank's cost of funds or an index
  - ***Loan Security*** – parity debt or is additional security proposed
  - ***Additional Debt Tests & Permitted Liens*** – terms, definitions, is future borrowing flexibility preserved
  - ***Annual Financial Covenants*** – definitions, testing frequency, make sure the covenants "work" (run stress tests)
  - ***Pre-payment Penalty*** – carefully review the prepayment calculation

Business & Legal Terms (continued)

- Continued…
  - ***Acceleration Terms*** – understand situations that would permit the lender to accelerate the loan
  - ***Events of Default*** – review and understand all potential events of default
  - ***Additional Business Requirements*** – is the lender requiring the borrower to transfer its banking business as a condition to the loan
  - ***Most Favored Nations*** – lender gets benefit of more restrictive covenants given to other creditors, understand if/how could cause acceleration in other debt obligations
  - ***Material Adverse Change*** – if lender deems that there was a "Material" change in the borrower's business, it can accelerate the loan repayment; subjective criteria?
  - ***Increased Cost Provisions*** – increased costs related to maintaining credit facility can be passed on to borrower (tax; reserves; other)

Wide Range in Pricing

Fixed Rate Proposals for BBB Credit



Other considerations for borrowers

Managing credit

Rating agencies and bank creditors are increasingly expecting…

- **Financial benchmarking (ratio/median analysis)**
- **Multi-year financial forecasting** on both a cash and accrual basis as part of the borrower's planning/management process
- **Sensitivity analyses and stress tests** related to debt issuances to assess the affordability of the proposed project

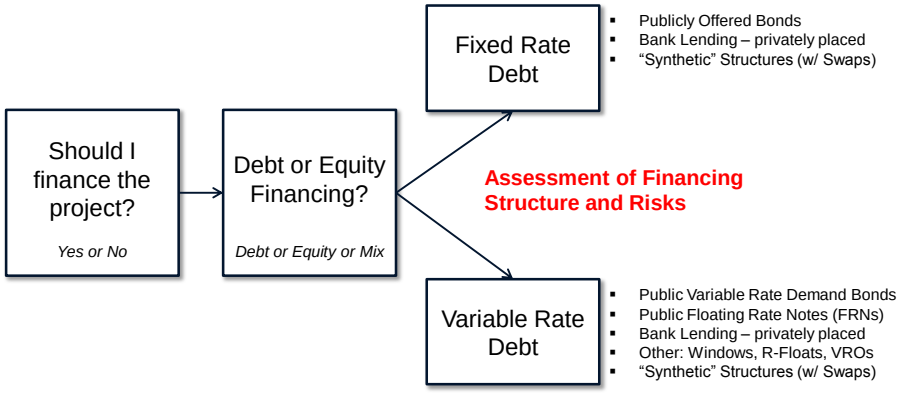
Publically Offered Bonds

vs.

Bank Loans

Selecting a financing structure

- The appropriate financing structure depends on the specific circumstances of the borrower/project
- It is always important to remember that in some cases the optimal course of action is to do nothing



Comparison:
Fixed Rate Bonds vs. Fixed Rate Bank Loans

	Natural Fixed Rate Bonds	Fixed Rate Bank Loan
Loan Size	Practical floor	Potential cap
Term / Amortization	~30 year term and amortization, usually	3-15 years term up to 30 year amortization
Pre-payment Features	1) 10-yr par call (tax-exempt) 2) Make whole (taxable)	1) Make whole 2) % of Par
Issuance Costs	Higher	Lower, no rating/underwriting
Positive Considerations	- Most risks transferred to investor - Budget certainty	- No Appendix A - No credit ratings - No DSRF
Negative Considerations	- Potentially higher cost of funds if longer tenor is selected	- Potentially more restrictive legal/ financial terms - Absorbs bank credit capacity - Uncertain impact of bank regulation
Other	- Reserve fund may be required for borrowers rated "BBB" and below	- Bank may require broader banking relationship

Sample Security/Covenant Structure
Public Bond Markets – Fixed Rate Bonds

Higher Education Borrowers

	AA Rated	A Rated	BBB Rated
Security	General Obligation	General Obligation / Revenue Pledge	Revenue Pledge
Mortgage	No	Depends	Yes
Debt Service Reserve Fund	No	No	Depends
Ongoing Financial Covenants	None / Debt Service Coverage	1) Debt Service Coverage	1) Debt Service Coverage 2) Leverage/Liquidity Test
Additional Bonds Test	No	Yes	Yes

Note: table above is for discussion purposes only. Actual security/covenant structure depends on the circumstances of the transaction.

Sample Security/Covenant Structure
Public Bond Markets – Fixed Rate Bonds

Healthcare Borrowers

	AA Rated	A Rated	BBB Rated
Security	Revenue Pledge	Revenue Pledge	Revenue Pledge
Mortgage	Depends	Yes	Yes
Debt Service Reserve Fund	No	No	Depends
Ongoing Financial Covenants	Debt Service Coverage	1) Debt Service Coverage 2) Liquidity Test	1) Debt Service Coverage 2) Liquidity Test 3) Leverage Test
Additional Bonds Test	Yes	Yes	Yes

Note: table above is for discussion purposes only. Actual security/covenant structure depends on the circumstances of the transaction.

Current Market Trends for Variable Rate Debt

- Borrowers have many more options for variable rate debt now versus 2008
  - Now (2015) = VRDBs, Direct Loans, FRNs, VROs, Windows, etc.
    - Public and private alternatives are generally attractive
  - Then (2008) = VRDBs
- Market is largely moving away from products that have put risk
  - Variable rate direct loans replacing many VRBDs backed by LOCs
  - In the public markets borrowers increasingly looking at products like FRNs in lieu of VRBDs
- Regulatory changes are driving up the cost for bank liquidity and creating more uncertainty, driving more borrowers away from VRDB markets

Variable Rate Debt Considerations

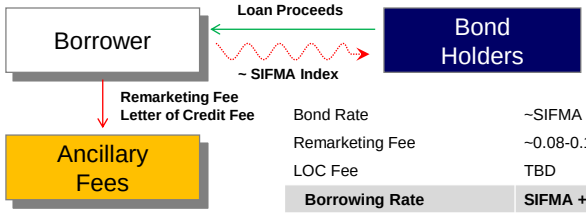
Advantages	Disadvantages
Lower Debt Service Costs → Variable rates have historically been lower than fixed rates **Debt Flexibility** • Variable rate debt is currently callable with short notice (15-30 days) • Debt can be prepaid easily for any reason **Diversifies Investor Base** • Variable rate debt appeals to different market segments and investors **Asset-Liability Management** • Hedge interest rate risk inherent in most capital structures • Diversify capital structure	**Less budget certainty** for interest expense **More risks** (depends on variable rate product and terms & conditions) • Put risk • Rollover risk • Acceleration risk • Bank credit exposure **Often viewed less favorably by rating agencies**

Variable Rate Demand Bonds (VRDBs)

- **Interest Reset Procedure.** Interest rates are adjusted by a remarketing agent (an investment bank) at the minimum rate required to trade the VRDBs at par (~SIFMA Index)
- **Interest Rate Modes.** Daily and Weekly rate resets are the most common
- **Interest Payment Frequency.** Usually monthly
- **Redemption Provisions.** Callable anytime with 15-30 days notice at par
- **Tender or "Put" Features.** VRDB investors may tender the securities on any reset date with notice → provides investor with weekly liquidity
  - Remarketing agent seeks to find new investors to buy the tendered VRDBs
- **Liquidity.**
  - Liquidity is required to purchase tendered and unremarketed VRDBs (Failed Remarketing).
  - Borrower may purchase liquidity from a bank or alternatively provide self liquidity

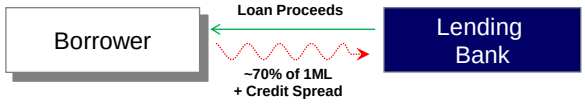
Variable rate debt mechanics

Variable Rate Demand Bonds



Bond Rate	~SIFMA
Remarketing Fee	~0.08-0.15%
LOC Fee	TBD
Borrowing Rate	**SIFMA + Fees**

Variable Rate Bank Loan



Loan Rate	~70% of 1ML
Credit Spread	TBD
Borrowing Rate	**70% of 1ML + Credit Spread**

Select List of Letter of Credit Banks

Active in the LOC/SBPA market from 2012-2014

Bank of America — A2 / A / A

Northern Trust — A1 / AA- / AA-

Bank of Tokyo-Mitsubishi UFJ

BMO — NR / A+ / AA-

BNY MELLON — Aa2 / AA- / AA-

TD Bank — Aa3 / AA- / AA-

UnionBank — A2 / A+ / A

STATE STREET — Aa3 / AA- / AA-

JPMorganChase — Aa3 / A+ / A+

usbank — Aa3 / AA- / AA-

SMBC — A1 / A+ / NR

RBC — Aa3 / AA- / AA

PNC — A2 / A / A+

MIZUHO

WELLS FARGO — Aa3 / AA- / AA-

Comparison:
Variable Rate Demand Bonds vs. Variable Rate Bank Loans

	Variable Rate Demand Bonds	Variable Rate Bank Loan
Loan Size	Practical floor	Potential cap
Term / Amortization	Up to 30 years term and amort., usually LOC term is 1-5 years, usually	3-15 years term up to 30 year amortization
Pre-payment Features	Anytime at Par, usually	Anytime at Par, usually
Issuance Costs	Higher	Lower, no rating/underwriting
Positive Considerations	- Established market	- No Appendix A - No credit ratings - No Remarketing Risk - Reduced exposure to credit quality of bank credit provider
Negative Considerations	- Potentially more restrictive legal/ financial terms - Incremental structure risks - Absorbs bank credit capacity	- Potentially more restrictive legal/ financial terms - Absorbs bank credit capacity
Other	Bank may require broader banking relationship	Bank may require broader banking relationship

Risk Comparison

- The table below presents some of the risks associated with certain financing structures. The list is for discussion purposes and is not complete.

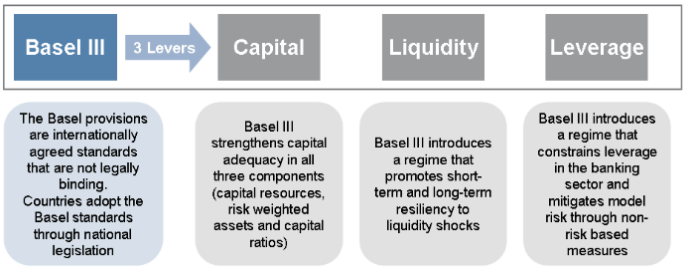
Potential Risk	VRDBs	Variable Rate Bank Loan	Fixed Rate Bank Loan	Natural Fixed Rate Bonds
Acceleration Risk	Yes	Yes	Yes	No
Remarketing Risk	Yes	No	No	No
Renewal/Refinancing Risk	Yes	Yes	Yes	No
Interest Rate Risk Associate With:				
Short-term Market Conditions	Yes	Yes	Yes/No	No
Credit Quality of Support Provider	Yes	No	No	No
Credit Quality of Obligor	Yes	Yes	Yes	No

Regulatory Environment

Basel III: Three Primary Categories

- Will be phased in between 2013 and 2019 - rules and timing vary by bank size
- Higher capital and liquidity requirements for banks may result in lower credit capacity and higher pricing for bank facilities
- Drivers of pricing for banks likely to include composition of balance sheet; bank size; geographic focus; derivative exposure
- **Borrowers with bank credit should closely monitor the regulatory environment → regulatory changes could impact bank lenders' interest in providing credit facilities in the future**

Basel III is a global, voluntary regulatory framework on bank capital, liquidity and stress testing risk.



Refunding Opportunities

Refunding considerations for borrowers

- With rates at historically low levels, **borrowers should be reviewing their entire debt portfolio for refunding opportunities**.

Economic & Restructuring Opportunities:

- Interest rate savings from lower interest rates
- Reduced credit spread component of loan rate by refunding debt or renegotiating terms
- Release debt service reserve funds that are invested at low rates
- Extend/shorten duration:
  - Extend duration in historically low interest rate environment to reduce annual debt service requirements
  - Reduce duration to take advantage of low interest rate environment and steep yield curve
- Adjust risk profile of your capital structure

Refunding considerations (continued)

Advance Refundings

LIMIT ON ADVANCE REFUNDINGS (SECTION 149(d))

- When **refunding** bonds are issued and the **refunded** bonds are paid off (either by maturing or being called for redemption) **within 90 days** after the issuance of the refunding bonds, it constitutes a **"current" refunding**.
- If the refunded bonds will not be paid off within 90 days, it constitutes an **"advance" refunding**.
- As a general matter, **only one** advance refunding is permitted per project.
  - *Example:* if new money bonds were issued in 2000 and were subsequently advance refunded in 2005, then any additional refundings must be current refundings.

Analysis Considerations:

- Execute now vs wait until the call date → have your advisor/banker run sensitivity, option value and/or efficiency analyses
- Does a small taxable component make sense?

Escrow requirements example
Background

	Current Debt Service Requirements					Defeasance Escrow Requirements				
	Period Ending	Principal	Coupon	Interest	Debt Service	Period Ending	Principal	Principal Called	Interest	Escrow Requirements
Today / Closing	5/2/2015	$ -	-	$ -	$ -	5/2/2015	$ -	$ -	$ -	$ -
	10/1/2016	$ 420,000	4.00%	$ 378,525	$ 798,525	10/1/2016	$ 420,000	$ -	$ 378,525	$ 798,525
	4/1/2017	$ -	-	$ 370,125	$ 370,125	4/1/2017	$ -	$ -	$ 370,125	$ 370,125
	10/1/2017	$ 440,000	4.00%	$ 370,125	$ 810,125	10/1/2017	$ 440,000	$ -	$ 370,125	$ 810,125
	4/1/2018	$ -	-	$ 361,325	$ 361,325	4/1/2018	$ -	$ -	$ 361,325	$ 361,325
	10/1/2018	$ 460,000	4.00%	$ 361,325	$ 821,325	10/1/2018	$ 460,000	$ -	$ 361,325	$ 821,325
	4/1/2019	$ -	-	$ 352,125	$ 352,125	4/1/2019	$ -	$ -	$ 352,125	$ 352,125
	10/1/2019	$ 480,000	4.00%	$ 352,125	$ 832,125	10/1/2019	$ 480,000	$ -	$ 352,125	$ 832,125
	4/1/2020	$ -	-	$ 342,525	$ 342,525	4/1/2020	$ -	$ -	$ 342,525	$ 342,525
10/1/20 Call Date	10/1/2020	$ 495,000	4.00%	$ 342,525	$ 837,525	10/1/2020	$ 495,000	$ 2,875,000	$ 342,525	$ 3,712,525
	4/1/2021	$ -	-	$ 332,625	$ 332,625					
	10/1/2021	$ 515,000	5.00%	$ 332,625	$ 847,625	Total	$ 2,295,000	$ 2,875,000	$3,230,725	$ 8,400,725
	4/1/2022	$ -	-	$ 319,750	$ 319,750	Total Principal Redeemed		$ 5,170,000		
	10/1/2022	$ 545,000	5.00%	$ 319,750	$ 864,750					
	4/1/2023	$ -	-	$ 306,125	$ 306,125					
	10/1/2023	$ 575,000	5.00%	$ 306,125	$ 881,125					
	4/1/2024	$ -	-	$ 291,750	$ 291,750					
	10/1/2024	$ 605,000	5.00%	$ 291,750	$ 896,750					
	4/1/2025	$ -	-	$ 276,625	$ 276,625					
	10/1/2025	$ 635,000	5.00%	$ 276,625	$ 911,625					
	Total	$5,170,000		$6,284,475	$11,454,475					

What is negative arbitrage?
Background

- **Negative arbitrage** occurs when market reinvestment rates are **lower** than your allowable reinvestment rate (usually the “arbitrage yield”) → in other words there is no way for you to buy securities that yield as much as the highest rate permitted by the IRS.

- Essentially you would be funding your investments at a “loss” (loss = what you were permitted to earn less what you actually earn), and therefore there would be a higher relative cost for defeasing the bonds

What is negative arbitrage? (continued)
Background

– **Example:**

Escrow Requirement		Cost of Escrow		
Date	Amount	PV @ 1.0% (Market)	PV @ 4.0% (Limit)	Difference
6/1/2016	$10,000,000	$9,900,990	$9,615,385	$285,605

- In the above example, we compare the cost of funding an escrow requirement due in one year of $10,000,000 using a theoretical market rate of 1.00% vs. assuming we could earn a theoretical arbitrage yield of 4.00%.
- If we could earn the 4.00%, we would save $285,605 on the cost of the escrow → smaller initial deposit
- *Drivers of negative arbitrage include:* market investment rates, size of escrow, duration of escrow requirements.

Source: DBC finance.

Sample Refunding Analysis
Refunding Screen

- Evaluate the universe of refunded bonds for refunding opportunities
- It may not make economic sense to refund all of the bonds

Series 2000-VT			Refunding	
Maturity	Par	Rate	Savings ($000)	Percent of Refunded Par
10/1/2025	2,600	5.25%	$285	**10.96%**
10/1/2024	2,470	5.25%	249	**10.08%**
10/1/2026	2,735	5.25%	276	**10.07%**
10/1/2023	2,345	5.25%	214	**9.11%**
10/1/2027	2,875	5.25%	258	**8.96%**
10/1/2022	2,225	5.25%	179	**8.05%**
10/1/2028	3,030	5.25%	240	**7.91%**
10/1/2021	2,115	5.25%	156	**7.36%**
10/1/2020	2,010	5.25%	116	**5.79%**
10/1/2029	3,190	5.00%	158	**4.96%**
10/1/2030	3,345	5.00%	141	**4.23%**
10/1/2019	1,910	5.25%	71	**3.73%**
10/1/2031	3,515	5.00%	129	**3.68%**
10/1/2032	3,695	5.00%	119	**3.22%**
10/1/2037	4,715	5.00%	87	**1.84%**
10/1/2036	4,485	5.00%	82	**1.83%**
10/1/2035	4,275	5.00%	78	**1.82%**
10/1/2034	4,070	5.00%	74	**1.81%**
10/1/2033	3,880	5.00%	70	**1.80%**
10/1/2018	1,815	5.25%	24	**1.30%**

Note: All values in thousands, unless otherwise noted.

Sample Refunding Analysis

- **Borrower XYZ** could realize an estimated **$2.6 million in present value savings** through **an advance refunding**

Refunded Bonds

Series	Maturity Date	Call Date	Average Coupon	Average Life	Outstanding Par
2000-VT	10/1/2037	10/1/2017	5.06%	13.5 yrs	$84,075

Refunding Analysis

Assumptions	
Financing Mechanism	Public Offering[1]
Tax Status	Tax-Exempt
Delivery Date	10/1/2015
Maturities Refunded	2018 – 2037
Par Amount Refunded	$61,300
Statistics	
Average Life	14.1 yrs
All-In True Interest Cost	3.75%
Negative Arbitrage	$3,435
Present Value Savings @ Arb. Yield	**$2,551**
PV Savings as a % of Par	**4.16%**
Average Yearly Cash Flow Savings	**$156**

Sources	$000
Par	$59,590
Premium	$8,191
Total Sources	**$67,781**
Uses	
Escrow	$66,948
Costs of Issuance[1]	$833
Total Uses	**$67,781**

Note: All values in thousands, unless otherwise noted.

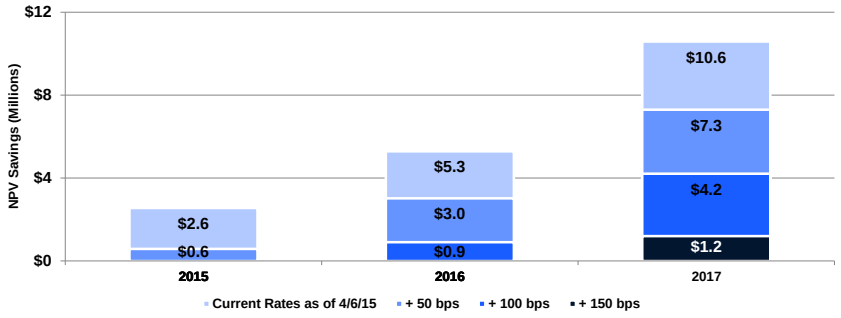
1. *Represents underwriter's discount of $5.50/bond and other costs of issuance of $500,000.*

Sample Refunding Cash Flow Analysis

	$000			$000			$000
Date	Prior Debt (Refunded Portion)			New Debt			Savings
Fiscal Year	Principal	Interest	Debt Service	Principal	Interest	Debt Service	Cash Flow
2016	$-	$1,565	$1,565	$-	$1,490	$1,490	$75
2017	-	3,130	3,130	-	2,980	2,980	151
2018	-	3,130	3,130	-	2,980	2,980	151
2019	1,815	3,083	4,898	1,800	2,935	4,735	163
2020	1,910	2,985	4,895	1,890	2,842	4,732	163
2021	2,010	2,882	4,892	1,985	2,745	4,730	162
2022	2,115	2,774	4,889	2,085	2,644	4,729	160
2023	2,225	2,660	4,885	2,185	2,537	4,722	163
2024	2,345	2,540	4,885	2,300	2,425	4,725	160
2025	2,470	2,413	4,883	2,415	2,307	4,722	162
2026	2,600	2,280	4,880	2,535	2,183	4,718	162
2027	2,735	2,140	4,875	2,660	2,053	4,713	162
2028	2,875	1,993	4,868	2,790	1,917	4,707	161
2029	3,030	1,838	4,868	2,935	1,774	4,709	159
2030	3,190	1,679	4,869	3,085	1,623	4,708	160
2031	3,345	1,515	4,860	3,235	1,465	4,700	160
2032	3,515	1,344	4,859	3,400	1,300	4,700	159
2033	3,695	1,164	4,859	3,575	1,125	4,700	159
2034	3,880	974	4,854	3,750	942	4,692	162
2035	4,070	776	4,846	3,935	750	4,685	161
2036	4,275	567	4,842	4,135	548	4,683	159
2037	4,485	348	4,833	4,335	336	4,671	162
2038	4,715	118	4,833	4,560	114	4,674	159
Total	**$61,300**	**$43,898**	**$105,198**	**$59,590**	**$42,014**	**$101,604**	**$3,594**

Note: All values in thousands, unless otherwise noted.

Sample Refunding Sensitivity Analyses



Months of Interest Rate Risk	6 Months		18 Months			30 Months			
Date of Refunding	(10/1/2015)		(10/1/2016)			(10/1/2017)			
Interest Rates	Current	+50 bps	Current	+50 bps	+100 bps	Current	+50 bps	+100 bps	+150 bps
Par Refunded	$61.3	$61.3	$61.3	$61.3	$61.3	$79.7	$79.7	$79.7	$79.7
NPV Savings	$2.6	$0.6	$5.3	$3.0	$0.9	$10.6	$7.3	$4.2	$1.2
As % of Refunded Par	*4.16%*	*0.94%*	*8.64%*	*4.92%*	*1.48%*	*13.29%*	*9.15%*	*5.29%*	*1.50%*
Avg. Ann. Cash Flow Savings	$0.16	$0.04	$0.33	$0.20	$0.06	$0.68	$0.49	$0.30	$0.09
Efficiency[1]	42.61%	14.47%	74.15%	62.24%	33.29%	100.00%	100.00%	100.00%	100.00%

Note: All values in millions, unless otherwise noted.

1. *Represents NPV Savings as a percent of the sum of NPV Savings and Negative Arbitrage.*

Refunding considerations (continued)

Existing Reserve Funds

Analysis Considerations:

- Do you have an existing reserve fund?
- How is it invested?
- Do you have an investment agreement related to the reserve fund?
  - What are the economics of breaking this agreement?
  - How are you determining breakage cost?
- How are you treating the reserve fund when evaluating the economics of the refunding?