



BNY MELLON

South Florida GFOA Annual Investment Seminar

**Arbitrage Rebate and Yield
Restriction**

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Goal of IRS Arbitrage Rules

Arbitrage Rules are designed to eliminate any arbitrage incentive to:

-  Issue more bonds than needed,
-  Issue bonds earlier than needed, and
-  Leave bonds outstanding longer than needed

In order to accomplish the governmental purpose of the bond issue.



Definitions

Arbitrage

The ability to obtain low-yielding tax-exempt bond proceeds and invest the funds in higher yielding taxable securities, resulting in a profit.

Arbitrage Rebate

The dollar profit earned from arbitrage which must be paid back (rebated) to the federal government.

Rebate Amount

Defined as the excess of the future value of receipts from non-purpose investment over the future value of all payments on non-purpose investments. The Bond Yield is the rate used to determine the future value of the receipts and payments on the non-purpose investments.



Required Calculation Dates

Installment Calculation Dates (Every 5 years)

- Installments must be paid at least every 5th bond year.
- Bond year is each one-year period ending on the date selected by the Issuer.
- If no date is selected by the Issuer, bond year ends on each anniversary date of the issue.
- Installment payable within 60 days.
- Installment of at least 90% of cumulative rebate is due.

Final Calculation Date

- Date all bonds of an issue have been retired and last bondholder is paid in full.
- Cash defeasance or refunding may accelerate final computation date.
- Final payment due within 60 days.
- 100% of remaining arbitrage rebate amount is due.

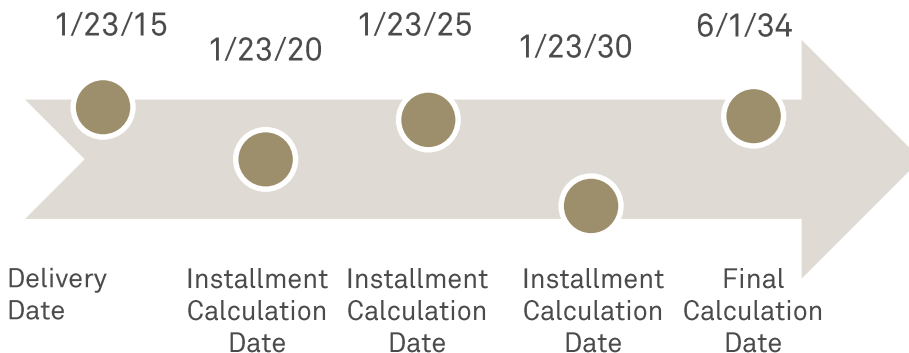
Computation Date Definition

- A computation date may not be longer than five years after the date the bonds are delivered.
- Fixed Yield Bonds: An issuer may treat any date as a computation date.
- Variable Yield Bonds: An issuer,
 - May treat that last day of any Bond Year on or before the first required payment date as a computation date; and
 - After the first required payment date, must consistently treat the end of each Bond Year or the end of the each fifth Bond Year as a computation date and may not change that treatment.





Required Arbitrage Reporting Dates



Rebate Amount is cumulative from the Delivery Date through the Final Calculation Date.



Bond Yield



Yield on an Issue

Yield on an issue is the discount rate, that when used to compute the present value of principal, interest and qualified guarantee fees, produces an amount equal to the issue price of the bonds.

Issue price is the price at which the bonds were sold to the public, not the price the bonds were sold to the underwriter.

The 2016 Regulations revised the definition of Issue Price. This change in definition impacts the prices and documentation to be completed at closing. Bond counsels are now incorporating the changes into the documents prepared at an issuance's closing.



Yield on an Issue

There are two types of bond yields

Fixed Rate Issues

Yield is computed over the life of the issue.

Variable Rate Issues

Yield is computed separately for each 5 year computation period.



Sample Fixed Rate and Variable Rate Bond Yields

Fixed Rate Bond Yield

TOTAL DEBT SERVICE REQUIREMENTS AND YIELD ON THE BONDS

Payment Date	Interest Rate	Principal	Interest	Total Debt Payment	Adjustment	Adjusted Debt Payment	Present Value 03/29/2001 4.286613%
11/15/2001	4.000%	2,240,000.00	1,875,192.04	4,115,192.04	-	4,115,192.04	4,007,066.50
05/15/2002			1,284,076.25	1,284,076.25	-	1,284,076.25	1,224,101.25
11/15/2002	4.250%	3,335,000.00	1,284,076.25	4,619,076.25	-	4,619,076.25	4,310,937.71
05/15/2003			1,213,207.50	1,213,207.50	-	1,213,207.50	1,108,515.55
11/15/2003	4.250%	3,495,000.00	1,213,207.50	4,708,207.50	-	4,708,207.50	4,211,651.08
05/15/2004			1,138,938.75	1,138,938.75	-	1,138,938.75	997,441.07
11/15/2004	4.250%	3,655,000.00	1,138,938.75	4,793,938.75	-	4,793,938.75	4,110,261.42
05/15/2005			1,061,270.00	1,061,270.00	-	1,061,270.00	890,826.11
11/15/2005	4.250%	3,825,000.00	1,061,270.00	4,886,270.00	-	4,886,270.00	4,015,453.48
05/15/2006			979,988.75	979,988.75	-	979,988.75	788,439.39
11/15/2006	4.250%	4,000,000.00	979,988.75	4,979,988.75	-	4,979,988.75	3,922,524.57
05/15/2007			894,988.75	894,988.75	-	894,988.75	690,152.36
11/15/2007	4.250%	4,185,000.00	894,988.75	5,079,988.75	-	5,079,988.75	3,835,131.29
05/15/2008			806,057.50	806,057.50	-	806,057.50	595,763.09
11/15/2008	4.500%	4,380,000.00	806,057.50	5,186,057.50	-	5,186,057.50	3,752,623.43
05/15/2009			707,507.50	707,507.50	-	707,507.50	501,208.92
11/15/2009	4.500%	4,590,000.00	707,507.50	5,297,507.50	-	5,297,507.50	3,674,086.80
05/15/2010			604,232.50	604,232.50	-	604,232.50	410,272.12
11/15/2010	4.500%	4,820,000.00	604,232.50	5,424,232.50	-	5,424,232.50	3,605,755.73
05/15/2011			495,782.50	495,782.50	-	495,782.50	322,655.66
11/15/2011	4.500%	5,055,000.00	495,782.50	5,550,782.50	-	5,550,782.50	3,536,652.51
05/15/2012			382,045.00	382,045.00	-	382,045.00	238,310.29
11/15/2012	4.500%	5,305,000.00	382,045.00	5,687,045.00	-	5,687,045.00	3,473,001.88
05/15/2013			262,682.50	262,682.50	-	262,682.50	157,050.59
11/15/2013	4.500%	5,570,000.00	262,682.50	5,832,682.50	-	5,832,682.50	3,414,026.31
05/15/2014			137,357.50	137,357.50	-	137,357.50	78,712.01
11/15/2014	4.700%	5,845,000.00	137,357.50	5,982,357.50	-	5,982,357.50	3,356,224.97
		\$60,300,000.00	\$21,811,462.04	\$82,111,462.04	\$0.00	\$82,111,462.04	\$61,228,846.08

The present value of the future payments equals to:

Principal Amount of the Bonds	\$60,300,000.00
Accrued Interest	206,714.08
Original Issue Premium	722,132.00
Issue Price	<u>\$61,228,846.08</u>

Variable Rate Bond Yield

TOTAL DEBT SERVICE REQUIREMENTS AND YIELD ON THE BONDS

Payment Date	Principal	Interest	Level Qualified Guarantee Payments	Non-Level Qualified Payment Amounts	Total Debt Payment	Present Value 07/10/2008 1.188342%
07/10/2008			22,433.31		22,433.31	22,433.31
08/01/2008		8,409.84			8,409.84	8,404.03
09/02/2008		12,371.31			12,371.31	12,350.16
10/01/2008		23,702.46			23,702.46	23,639.36
11/03/2008		25,517.21			25,517.21	25,422.49
12/01/2008		6,152.46			6,152.46	6,123.98
01/02/2009		6,408.33			6,408.33	6,372.16
02/02/2009		3,295.48			3,295.48	3,273.64
03/02/2009		2,973.70			2,973.70	2,951.08
04/01/2009		3,350.96			3,350.96	3,322.30
05/01/2009		2,838.33			2,838.33	2,811.28
06/01/2009		2,543.18			2,543.18	2,516.45
07/01/2009	\$160,000.00	1,779.78			161,779.78	159,921.64
08/03/2009		1,675.01			1,675.01	1,654.03
09/01/2009		1,990.44			1,990.44	1,963.70
10/01/2009		1,838.16			1,838.16	1,811.67
11/03/2009		1,755.50			1,755.50	1,728.38
11/23/2009	\$7,940,000.00	1,109.42			7,941,109.42	7,813,300.35
11/23/2009						0.00
	<u>8,100,000.00</u>	<u>107,711.57</u>	<u>22,433.31</u>	<u>0.00</u>	<u>8,230,144.88</u>	<u>8,100,000.00</u>

The present value of the future payments equals to

Principal Amount of the Bonds

\$1,000,000.00



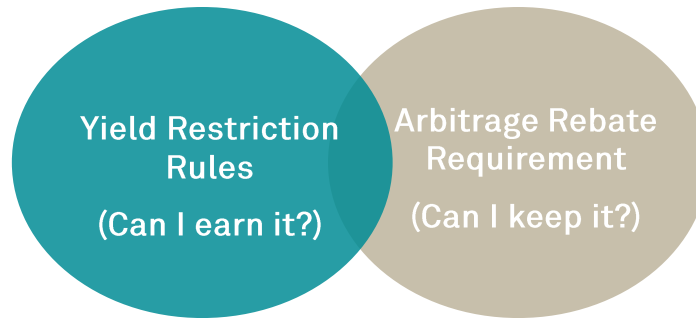
Arbitrage Rebate and Yield Restriction



Two Separate Rules

Yield Restriction – IRC Section 148(a): Governs when you may legally earn arbitrage from investing bond proceeds.

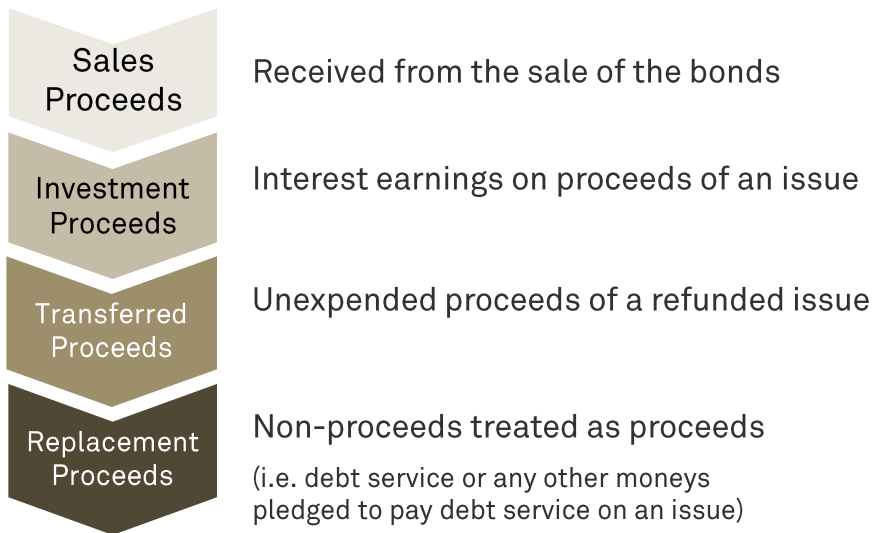
Arbitrage Rebate - IRC Section 148(f): Mandates when you must rebate arbitrage earned to the federal government.



Prior to 1986, only yield restriction applied. After 1986, both rules apply to a bond issue.



Proceeds Subject to Rebate and Yield Restriction



General Yield Restriction Rule

In general, “gross proceeds” of an issue may never be invested at a yield that is materially higher than the yield on the bonds.

Materially higher yields are defined based on the types of proceeds being restricted. The most used Materially Higher Yields are:

Investment Type	Materially Higher Yield
General rule for non-purpose investments	Bond Yield + 1/8th of 1% or Bond Yield + 0.125%
Advance refunding escrows and replacement proceeds	Bond Yield + 1/1000th of 1% or Bond Yield + 0.001%

Certain exceptions to this rule are available during “temporary periods” (next slide).

Temporary Periods

Temporary periods are time periods in which investing proceeds at a materially higher yield will not cause the bonds to become “arbitrage” bonds. Temporary periods are also defined based on the types of proceeds being restricted. The most used Temporary periods are:

Investment Type	Temporary Period
Capital Projects	3-years beginning on the issue date (can be extended to 5 years with certification that longer period is needed to complete the project).
Replacement Proceeds, in general, and Advance Refunding Escrows	30 days beginning on the date that the amounts are first treated as replacement proceeds (typically, the Temporary Period is waived for Advance Refunding Escrow Funds).
Bond Fide Debt Service Funds	13 months
Investment Proceeds (earnings)	12 months



Temporary Periods, continued..

Yield restriction is determined over time, not by individual investment.

Additionally, the Regulations allow for a Minor Portion that is not subject to the Yield Restriction Rules. If the balance, which would otherwise be subject to yield restriction, is an amount not exceeding the lesser of 5 percent of the sale proceeds of the issue or \$100,000, then no yield restriction implications exist.

When determining compliance with yield restriction, all yield restricted funds (same “class”) are blended together.

Lowest available materially higher yield is used for two types of restricted money.
Example: Construction Fund (after 3 years) and Escrow Fund, use 1/1000th of 1% limit.



After the Temporary Periods

Yield restrict remaining proceeds; or

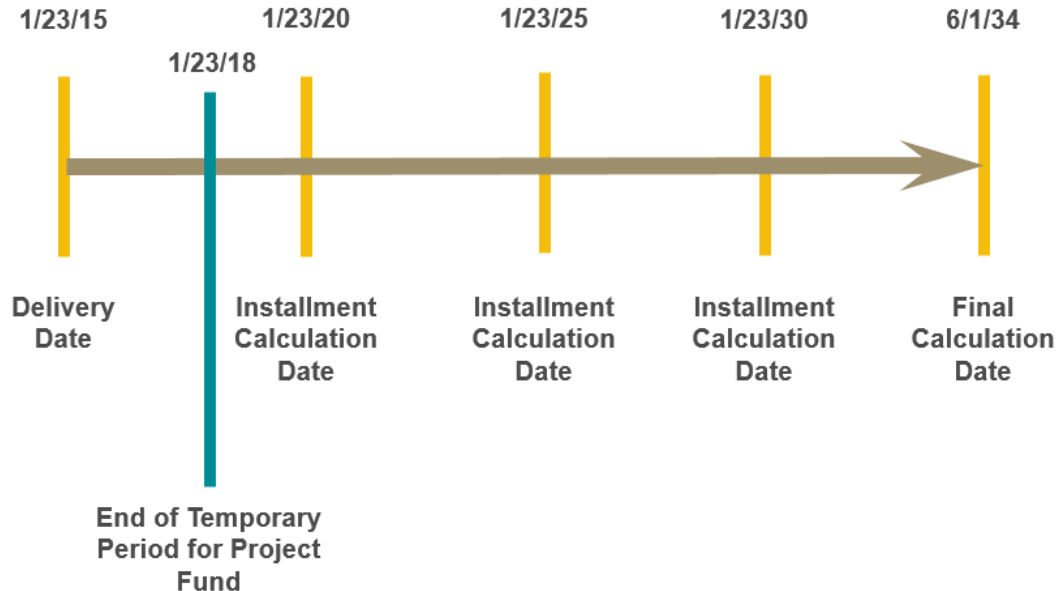
Yield reduction payment may be permitted under Regulations

Yield Reduction Payments:

- Yield Reduction Payments (YRPs) are payments made to the IRS on *certain* yield restricted funds.
- YRPs and Advance Refunding Escrows:
 - 2016 Final Regulations allow for YRPs to be made in instances where SLG Sales have been suspended by the Treasury at the time that the securities should have been purchased. This is the only available for purchases after October 17, 2016.
 - Variable Rate with a qualified hedge covering all of the variable rate bonds and covers the time period that the advance refunding escrow fund is outstanding.
- Paid at same time and manner as a rebate payment.



Required Arbitrage Reporting Dates





YRP Sample

		Arbitrage Earned
Years 1-3	(Unrestricted)	<90,000>
Years 4 & 5	(Restricted)	70,000
Arbitrage Rebate Payment		-0-
Yield Reduction Payment		70,000



Rebate Credits

1992 Regulations	1993 Regulations	2016 Regulations
\$3,000 every 5 years.	\$1,000 annually in each year gross proceeds are present plus \$1,000 on final computation date.	Permit an annual cost of living increase to a base of \$1,400 annual credit.

Rebate Credits – Reduce Payment Due

Calculation Year	Credit Amount
1993 - 2006	\$ 1,000.00
2007	\$ 1,400.00
2008	\$ 1,430.00
2009	\$ 1,490.00
2010	\$ 1,500.00
2011	\$ 1,520.00
2012	\$ 1,550.00
2013	\$ 1,590.00
2014	\$ 1,620.00
2015	\$ 1,650.00
2016	\$ 1,650.00
2017	\$ 1,670.00
2018	\$ 1,700.00
2019	\$ 1,730.00

Exceptions to the Rebate Requirements

Small Issuer Exception	Debt Service Fund Exclusion	Spending Exceptions
<ul style="list-style-type: none">• \$5 million or less in total Tax-Exempt debt sold in a calendar year• Up to \$15 million for construction of public school facilities• Only available for Governmental Issuers with general taxing powers	<ul style="list-style-type: none">• Balance Test – less than 1/12th of debt services as a low balance• Earnings Test – less than \$100,000 per bond year	<ul style="list-style-type: none">• 6 – Month Exception• 18 – Month Exception• 24 – Month Exception



Exceptions to Rebate Requirement

6 Month Spending Exception

Period	Cumulative Expenditures
6 months	100%

Exception allows for an additional 6 months if the issuer is a 501(c)3 or Governmental issuer and the excess proceeds amount outstanding at 6 months is less than 5% of the proceeds of the Bonds.

ALL proceeds must be spent within 12 months.

12 Month Spending Exception

Period	Cumulative Expenditures
6 months	15%
12 months	60%
18 months	100%

Exception fails if any semi-annual period is missed.

Regulations allow a failure to satisfy the final spending threshold to be disregarded if the issuer exercises due diligence to complete the project and the amount of the failure does not exceed the lesser of 3% of the issue price of the issue or \$250,000.

24 Month Spending Exception

Period	Cumulative Expenditures
6 months	10%
12 months	45%
18 months	75%
24 months	100%

Exception fails if any semi-annual period is missed.

Regulations allow a failure to satisfy the final spending threshold to be disregarded if the issuer exercises due diligence to complete the project and the amount of the failure does not exceed the lesser of 3% of the issue price of the issue or \$250,000.

Application of Spending Exceptions is Optional **

The 6 Month, 18 Month and 24 Month Spending Exceptions are optional and their application is only beneficial to an issue if these proceeds are generating positive arbitrage.

Given that the calculation of the Rebate Amount is cumulative over the life of an issue, if proceeds qualify for one of the Spending Exceptions but are generating negative arbitrage, the application of the Spending Exception could result in positive arbitrage for the issue.

** If an issuer elects to pay the 1.5% penalty in lieu of rebate, then the application of the 24 Month Spending Exception is not optional.





Refundings



Impact of a Refunding


Refunding of debt should be analyzed.





May accelerate final maturity of the issue and the Final Computation Date



Unspent proceeds “transfer” from the old issue or issues to the Refunding issue



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