

Overview of the Arbitration Laws



Pinnacle Arbitrage Compliance LLC

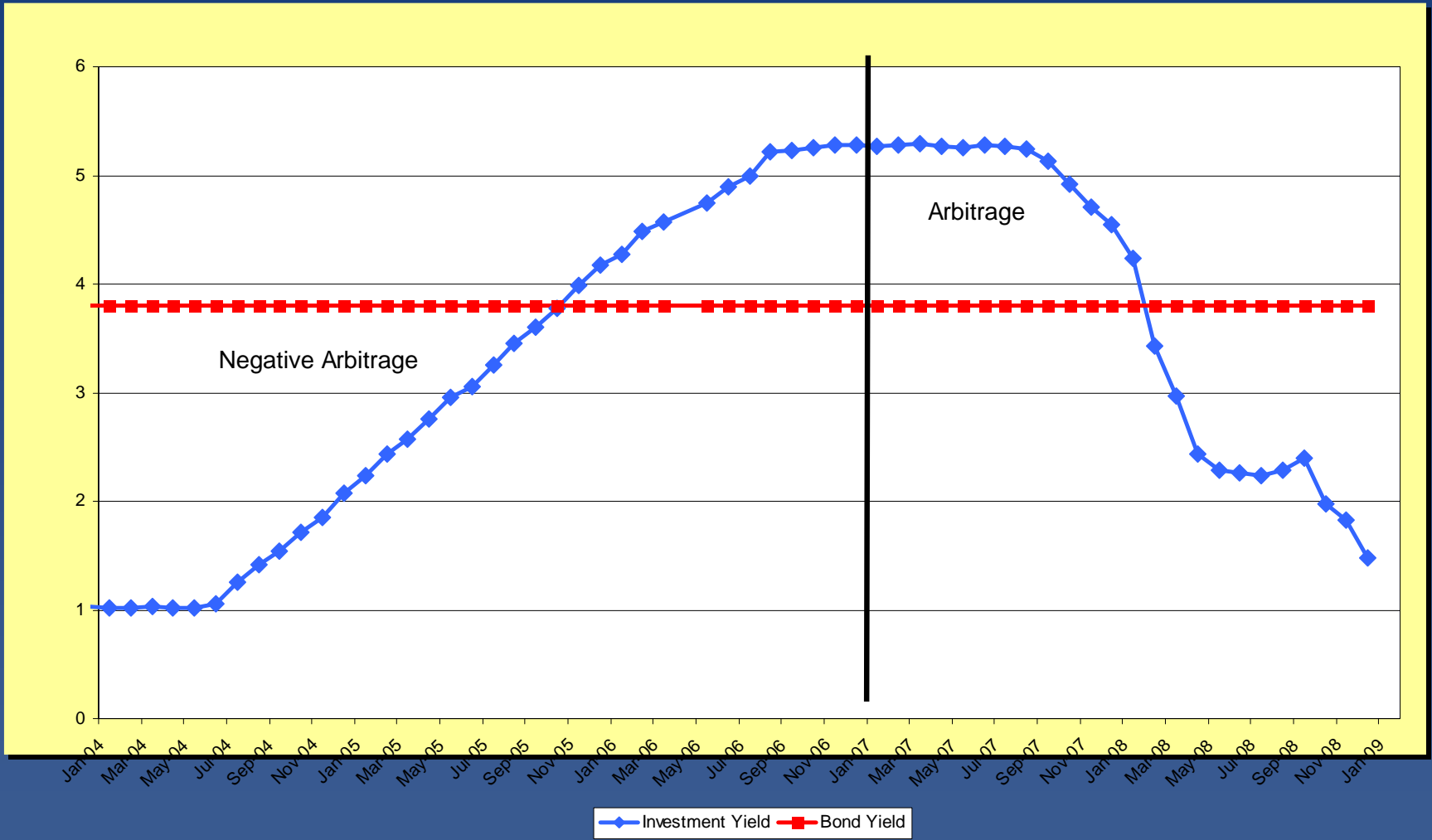
Definition

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

The Rebate Amount is defined as the excess of the future value of receipts from nonpurpose investment over the future value of all payments on nonpurpose investments. The computation date may be selected by the issuer.

Arbitrage Rebate from 2004 – 2009



Gross Proceeds Subject to Rebate

- **Sale Proceeds** – Received from the sale of the bonds.
- **Investment Proceeds** - Interest earnings on proceeds of an issue.
- **Transferred Proceeds** – Unexpended proceeds of a refunded issue.
- **Replacement Proceeds** – Non-proceeds treated as proceeds (e.g., debt service).

Calculation and Reporting Requirements



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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.

Installment Calculation Dates

- 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 Computation Date

- Date all bonds of an issue have been retired
 - matured or
 - redeemed early.
- Cash defeasance or refunding may accelerate final computation date.
- Final payment due within 60 days.
- 100% of remaining arbitrage rebate amount is due.

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.
- Two types of bond yields
 - **Fixed Rate Issues** – yield computed over the life of the issue.
 - **Variable Rate Issues** – yield computed separately for each 5-year computation period.

Sample Fixed Rate and Variable Rate Bond Yields

(See handouts)

Yield and Cash Flow on Investments



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Net Investment Cash Flow

Payments (outflows of cash):

- Purchase price of investments;
- Value of investment reallocated to an issue (e.g., transferred proceeds, reserve funds, universal cap);
- Value of investments from the end of the prior calculation;
- Rebate credit amount; and
- Yield reduction payments.

Net Investment Cash Flow

Receipts (inflows of cash):

- Sales price or maturity value of investment,
- Value of investment reallocated to another issue (e.g., transferred proceeds, reserve funds, universal cap),
- Present value or fair market value of investments held on a computation date.

Net Investment Cash Flow Sample

Date	Amount	Description
1/1/93	\$(10,000,000)	Purchase Price
7/1/93	250,000	Interest Receipt
1/1/94	250,000	Interest Receipt
7/1/94	250,000	Interest Receipt
1/1/95	10,250,000	Maturity Receipt
	<hr/>	
	\$1,000,000	
	<hr/> <hr/>	

Valuing Outstanding Investments

- **Plain Par Investments** – Valued at its stated par plus unpaid accrued interest,
 - (e.g., certificate of deposit)
- **Fixed Rate Investment** – Valued at its present value,
 - (e.g., T-Note bought at a premium or discount)
- **Variable Rate Investment** – Valued at fair market value, or
 - (e.g., Money market funds)
- **All Investments** may be valued at their fair market value.

Fixed Rate Investments

- Fixed rate valued at present value of future cash flows
- Sample PV to 8/31/98 (4.738% yield):

	Total Cash flow	Present Value
2/5/98	(5,107,912)	(5,107,912)
3/31/98	125,000	125,000
8/31/98		5,118,208
9/30/98	125,000	
3/31/99	125,000	
9/30/99	125,000	
3/31/00	125,000	
9/30/99	5,125,000	
	642,088	135,296

Mandatory Valuation at FMV

- Investments allocated to a bond issue must be valued at Fair Market Value on the date investment is:
 - First allocated to an issue or the date it, or
 - First ceases to be allocated to an issue.
- Exceptions to FMV Rule:
 - Transferred proceeds
 - Universal cap
 - Some commingled funds (e.g., reserve funds)
- FMV must be used on investments outstanding on the final maturity date of the issue.

How to Calculate Rebate



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Discussion of Sample Arbitrage Rebate Calculations

(See handout)

Future Value Formula

$$FV = PV (1+i)^{nth \text{ power}}$$

- FV:** Future value of receipts and payment at the end of the period.
- PV:** Value of receipts and payments at the beginning of the period.
- i:** The yield on the issue divided by the number of compounding periods.
- n:** The length of the interval divided by the length of the whole compounding period.

Future Value Example

Facts:	Transaction Date:	1/1/94
	Future Value Date:	1/1/99
	Bond Yield:	7.00%
	Basis:	30/360 day, semiannual payments

$$FV = PV (1 + i)^{\text{to the nth power}}$$

$$FV = \$49,000,000 * (1 + 7.000\%/2)^{\text{nth power}}$$

$$FV = \$49,000,000 * (1.035)^{\text{nth power}}$$

$$FV = \$49,000,000 * (1.035)^{10}$$

$$FV = \$49,000,000 * (1.410598761)$$

$$FV = \$69,119,339.29$$

nth power = 1/1/94 to 1/1/99 = 1,800 days divided by 180 compounding period = 10 semiannual compounding periods.