Lesson 5

Arbitrage and Rebate

Overview

Purpose

In the municipal bond context, arbitrage generally refers to the profit from borrowing funds in the tax-exempt market (through a bond issue) and investing them in the taxable market. Interest on a bond is not excludable from income for federal income tax purposes if the bond is an "arbitrage bond."

This lesson provides an introduction to the various concepts, statutory provisions, and regulations that restrict the earning of arbitrage on investments of proceeds of bonds.

Objectives

At the end of this lesson you will be able to:

- Define an "arbitrage bond"
- Determine if a bond is an arbitrage bond
- Locate the applicable statutory provisions and regulations for making the determination of whether a bond is an arbitrage bond

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Objectives (continued)

- Describe the role of “reasonable expectations” and “intentional acts” in the context of arbitrage determinations
- For a fixed yield issue, describe the basic process for determining yield, and perform a yield calculation by determining issue price and calculating yield based on a set of payments
- Generally describe bond proceeds and the different types of funds in which bond proceeds are typically held
- Determine which funds are subject to arbitrage limitations
- Identify different classes of investments
- Perform an investment yield calculation by applying concepts to determine purchase prices of investments and calculating yield based on a set of payments and receipts for investments
- Locate the regulatory definition of “materially higher” applicable to different classes of investments
- Describe the effect of temporary periods on arbitrage determinations and identify applicable temporary periods
- Compare and contrast yield restriction requirements and arbitrage rebate requirements
- Summarize special rules applicable to arbitrage determinations for variable yield issues

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Contents

This lesson contains the following topics:

Section 1

Introduction

Overview

Purpose

This section presents general concepts relating to arbitrage (including the definition of an arbitrage bond) and provides the statutory and regulatory background related to arbitrage bonds.

Contents

This section contains the following topics:

Summary & Background

Context: § 103

Interest on arbitrage bonds is not tax exempt. Section 103(a) provides that, except as provide in § 103(b), gross income does not include interest on any State or local bond. Section 103(b)(2) provides that § 103(a) shall not apply to any arbitrage bond (within the meaning of § 148).

Simple Concept

In the bond context, arbitrage generally refers to the profit from borrowing funds in the tax-exempt market (through a bond issue) and investing them in the taxable market. Generally, evaluating whether a bond is an arbitrage bond means determining whether the proceeds of the bonds have been invested to produce a return that exceeds the costs of the bonds. In its simplest application, this process involves determining a yield on the bonds and a yield on the investments and then comparing the two.

Complex Application

Although the concept can be described as a simple comparison between yields, in practice the evaluation of whether a bond is an arbitrage bond is complex. The complications arise from:

- Computational challenges of calculating yields in accordance with the Code and the Regulations
- Exceptions in the Code and the Regulations that in certain limited circumstances permit arbitrage to be earned and, in even more limited circumstances, to be retained

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Can you earn it?— Yield Restriction

Generally, bond proceeds cannot be invested at a yield that is materially higher than the bond yield. This concept is known as yield restriction. There are several exceptions that permit unrestricted investments during a certain temporary period.

Can you keep it?— Arbitrage Rebate

In many circumstances where arbitrage is permitted to be earned under an exception to the yield restriction rules, arbitrage rebate rules require the issuer to pay the arbitrage earnings to the Federal government in order to avoid having the bonds become arbitrage bonds.

Section 148 Arbitrage Bond Defined

Section 148(a) provides that for purposes of § 103, the term "arbitrage bond" means any bond issued as part of an issue any portion of the proceeds of which are reasonably expected (at the time of the issuance of the bond), to be used directly or indirectly to:

- acquire higher yielding investments; or
- replace funds which were used directly or indirectly to acquire higher yielding investments.

For purposes of this definition, a bond is treated as an arbitrage bond if the issuer intentionally uses any portion of the proceeds of the issue, of which such bond is a part, in such a manner.

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Applicable Law

Since the Tax Reform Act of 1986, the arbitrage and rebate rules have been set forth in § 148. Regulations promulgated under § 148, provide substantial guidance on the application of the arbitrage rules. Generally, this lesson presents arbitrage rules and concepts under current law, although in some instances important distinctions between current law and prior law or proposed law are noted. In making arbitrage determinations, it is essential to identify the applicable set of laws.

Prior to the Tax Reform Act, § 103(c) of the 1954 Code contained the arbitrage rules.

The rules relating to arbitrage have evolved over several decades. In their original form (1969), the rules prohibited arbitrage earnings (i.e., yield restriction) except in certain circumstances (exceptions to yield restriction). These rules have evolved over time to include a requirement that even in some circumstances where an exception to yield restriction applies, the arbitrage earnings must be paid by the issuer to the Federal government (rebate).

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Regulatory History

There have been numerous regulations issued regarding arbitrage and rebate rules. The following is a chronology of some of the regulations:

- 1979: Regulations §§ 1.103-13, 1.103-14 and 1.103-15 were issued. These regulations only address yield restriction issues.
- 1989: The first set of regulations under the 1986 Code was issued. These regulations generally address the rebate provisions of § 148.
- February 12, 1992: Regulations addressing certain provisions under § 148 were published. Two important provisions in these regulations dealt with construction issues and transferred proceeds.
- May 18, 1992: The Service republished regulations which combined the existing 1992 regulations and the 1989 regulations, as amended. These were issued as final and temporary regulations.
- November 4, 1992: The Service issued proposed regulations which included many of the provisions of the 1979 regulations, the final and temporary 1992 regulations, and the reimbursement regulations.
- June 30, 1993: Final regulations under § 148 were issued. These regulations are generally effective for bonds issued after June 30, 1993.
- May 9, 1997: The Service amended portions of the final regulations.
- November 13, 2014: In accordance with Regulation §1.148-3(i)(3)(i) an issuer must request a refund of an overpayment of rebate no later than the date that is two years after the final computation date for the issue to which the overpayment relates.

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Proposed Regulations

In 2007, proposed regulations making a number of discrete changes to the existing regulations were published (REG-106143-07, September 26, 2007). Certain more substantive changes, which are discussed in further detail in the preamble to the proposed regulations and which are fully set forth in the proposed regulations, include:

- Hedges based on taxable interest rates. The proposed regulations make revisions to accommodate certain hedges in which floating payments under the hedge are based on a taxable interest rate and to clarify that bonds covered by such a hedge are ineligible for treatment as fixed yield bonds under the special hedging rule in §1.148-4(h)(4).

- Joint bond yield authority. The proposed regulations remove the provision in the Existing Regulations that permits the IRS Commissioner to authorize a single yield computation on multiple bond issues.

- Electronic GIC bidding. The proposed regulations revise the bidding safe harbor for establishing the fair market value of guaranteed investment contracts (GICs) to accommodate electronic bidding.

- Refunds of overpayments of rebate. The proposed regulations clarify that the amount that an issuer is entitled to receive under a rebate refund claim is the excess of the total amount actually paid over the rebate amount.

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Proposed Regulations (continued)

In 2013, proposed regulations making additional discrete changes to the existing regulations were published (REG-148659-07, September 16, 2007). Significant changes, which are discussed in further detail in the preamble to the proposed regulations and which are fully set forth in the proposed regulations, include:

- Working capital expenditures. The proposed regulations modify the safe harbors against creation of other replacement proceeds by shortening the safe harbor for short term working capital financings and adding a new one for longer term working capital financings. They also remove an existing restriction on financing a working capital reserve.

- Modification of qualified hedge. The proposed regulations simplify the rules for determining when a modification to a qualified hedge results in a deemed termination of that hedge.

In 2015, proposed regulations redefining issue price were published (REG-138526-14, June 24, 2015). As defined in the existing regulations, issue price of bonds that are publicly offered is the first price at which a substantial amount of the bonds is sold to the public. The existing regulations define substantial amount as ten percent and apply a reasonable expectations standard (rather than a standard based on actual sales) for this purpose. The proposed regulations apply an actual sales standard and, as an alternative to the actual sales standard, permit an issuer to treat the initial offering price to the public as the issue price, provided certain requirements are met.

Advanced Concepts; Proceeds and Allocations

This lesson does not address advanced concepts related to arbitrage and rebate, including certain payments that adjust bond yield and the effective dates of the regulations discussed above. These concepts are addressed in TEB Basic Training Phase II Advanced Topics in Arbitrage. Additionally, material relating to treatment of bond proceeds and allocation of proceeds to expenditures is presented in another lesson in TEB Basic Training Phase I, and in some instances summarized in this lesson.

Section 2

General Arbitrage Concepts

Overview

Purpose

The purpose of this section is to outline the general concepts that are applied in the process of determining whether a bond is an arbitrage bond. Some of the outlined concepts are presented in greater detail in other sections of this lesson or in other lessons of TEB Basic Training.

Contents

This section contains the following topics:

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Components of Arbitrage Determination

Section 148(a) provides the definition of the term "arbitrage bond." Under that definition, an arbitrage bond is any bond issued as part of issue any portion of the proceeds of which are reasonably expected (at the time of the issuance of the bond), to be used directly or indirectly to:

- acquire higher yielding investments; or
- replace funds which were used directly or indirectly to acquire higher yielding investments

For purposes of this definition, a bond is treated as an arbitrage bond if the issuer intentionally uses any portion of the proceeds of the issue of which such bond is a part in such a manner.

Thus, the distinct components of making an arbitrage determination with respect to a bond are:

- Identify the issue of which the bond is a part
- Identify the proceeds of that issue
- Determine whether the issuer reasonably expected (at issuance) to use or subsequently intentionally used any portion of such proceeds to acquire higher yielding investments

The Bond Issue

General

Under § 148(a) the term "arbitrage bond" includes *any bond issued as part of issue* with impermissible arbitrage. Thus, arbitrage analysis is conducted at the issue level (rather than the bond level) and affects all bonds that are part of the issue.

Definition of Issue—Regulations § 1.150-1(c)

Regulations § 1.150-1(c) defines issue. Generally, the term issue means two or more bonds that are:

- Sold at substantially the same time (less than 15 days apart)
- Sold pursuant to the same plan of financing
- Payable from the same source of funds

Certain exceptions and special rules described in Regulations. § 1.150-1(c) may apply to particular bonds and issues.

Difference between Bonds and Issue

Each bond is a part of an issue. An issue typically contains many bonds. In evaluating compliance with various provisions of the Code relating to municipal bonds, it is important to understand whether the requirement applies on a bond-by-bond basis or to the entire issue of which a bond is a part.

Proceeds

General

Identifying impermissible arbitrage under § 148(a) with respect to a bond requires analysis of how the "*proceeds*" of the issue of which the bond is a part were invested. Therefore, to determine whether the bond issue complies with § 148, it is important to determine what is included under "proceeds" of the bond issue.

Proceeds are discussed in detail in lesson 6 of Phase I of TEB Basic Training and the description below is intended as background to facilitate learning of arbitrage concepts.

Definition

Proceeds are defined in various sections of the regulations as shown below:

Under current Regulations…	**Proceeds include**
§ 1.148-1(b)	any sale proceeds, investment proceeds, and transferred proceeds of an issue proceeds do not include amounts actually or constructively received with respect to a purpose investment that are properly allocable to the immaterially higher yield under §1.148-2(d) or section 143(g) or to qualified administrative costs under §1.148-5(e).
Under prior Regulations	**Proceeds include**
§ 1.103-13(b)(2)	original proceeds and investment proceeds
§ 1.103-13(g)	amounts in a sinking fund

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Definition of Sale Proceeds

Under Regulations § 1.148-1(b), sale proceeds means any amounts actually or constructively received from the sale of an issue. This includes amounts paid as underwriter's discount or other compensation, and any accrued interest (other than pre-issuance accrued interest).

Sale proceeds also include any amounts received as a result of a sale of a right associated with the bond. The transfer of rights associated with the bond is discussed in Regulations § 1.148-4(b)(4) and are more fully described in TEB Basic Training Phase II Advanced Topics in Arbitrage lesson.

Definition of Investment Proceeds

Regulations § 1.148-1(b) defines investment proceeds as any amounts actually or constructively received from investing proceeds of an issue.

Definition of Transferred Proceeds – 1993 Regulations

Transferred proceeds are defined in § 1.148-9(b). When proceeds of a refunding issue are used to make principal payments on a prior issue, any unspent proceeds of the prior issue become transferred proceeds of the refunding issue and cease to be proceeds of the prior issue. The unspent proceeds "transfer over" to the refunding issue based on a formula provided in Regulations § 1.148-9(b)(1).

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Applicable Regulations

Due to the various arbitrage regulations issued by the Service under § 148, an agent must determine the regulation applicable to the issue under audit so as to determine the amount and the date on which the transferred proceeds are "transferred" to the refunding issue.

See TEB Basic Training Phase III Refundings lesson for a further discussion of transferred proceeds and refundings.

Definition of Gross Proceeds

Although § 148(a) only refers to proceeds of the bond, Regulations § 1.148-2(a) provides that the direct or indirect investment of the "gross proceeds" of an issue in higher yielding investments causes the bonds of an issue to be arbitrage bonds.

Gross proceeds are defined in § 1.148-1(b) to include any proceeds and replacement proceeds of an issue.

Therefore, in determining whether the bonds are arbitrage bonds, the examining agent must determine whether, in addition to the proceeds, the bond issue has any replacement proceeds.

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Definition of Replacement Proceeds

Regulations § 1.148-1(c) defines replacement proceeds:

Amounts will be replacement proceeds only if there is a sufficiently direct nexus to the:

- bond issue; OR
- governmental purpose of the issue

To conclude that the amounts would have been used for that governmental purpose if the proceeds of the issue were not used or to be used for that governmental purpose.

The mere availability or preliminary earmarking of funds for a governmental purpose, however, does not establish a nexus to cause the amounts to be replacement proceeds.

If an issuer sets aside moneys to be used to pay debt service on the bonds on a particular date, such amounts are considered replacement proceeds of the bonds.

Replacement proceeds include, but are not limited to, sinking funds and pledged funds and other replacement proceeds described in §1.148-1(c)(4) to the extent that those funds or amounts are held by or derived from a substantial beneficiary of the issue.

Sinking Fund

Regulations § 1.148-2(c)(2) provides that a sinking fund includes a debt service fund, redemption fund, reserve fund, replacement fund, or any similar fund, to the extent reasonably expected to be used directly or indirectly to pay debt service on the bonds.

Example 1

City X has certain bonds outstanding. City X sells some real property and the city council decides to set aside the proceeds of the sale of the real property to pay the debt service on the bonds. The proceeds of the sale of the real property are considered replacement proceeds and investments of such moneys must comply with § 148. (See also Rev. Rul. 79-134, 1979-1 C.B. 76; Rev. Rul. 80-13, 1980-1 C.B. 27.)

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Pledged Funds

A pledged fund is any amount that is directly or indirectly pledged to pay the principal of or interest on the bonds. A pledge by the issuer must provide reasonable assurance that such moneys will be available to pay the debt service on the bonds even if the issuer has financial difficulties. A party other than the issuer or conduit borrower may provide a pledge to secure the debt service on the bonds. A pledge to a guarantor of bonds is an indirect pledge to secure payment of principal or interest on the issue. (See Regulations § 1.148-1(c)(3)(i).)

Example 2

County X, a political subdivision of State Y will sell $50 million principal amount of bonds to finance the construction of a facility. State Y has surplus funds in the amount of $50 million which it will invest in treasury notes and pledge not to dispose of the notes while the bonds are outstanding. However, State Y does not reasonably expect to use the notes to pay debt service on the bonds. Because the notes are pledged as security for the bonds, the notes form a replacement fund for the bonds. (See Rev. Rul. 78-348, 1978-2 C.B. 95.)

Example 3

State A issued $1 million principal amount of bonds and lent the proceeds to Corporation B. Corporation B owns a federally insured mortgage note to be pledged as collateral for the bonds. The note has a materially higher yield than the yield on the bonds. There is reasonable assurance that the collateral will be available to pay debt service on the bonds. Accordingly, pledge of the mortgage note creates replacement proceeds. (See Rev. Rul. 78-348, 1978-2 C.B. 95.)

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Example 4

City Z issues $10 million principal amount of bonds and loans the proceeds to Corporation X to construct a facility. Corporation X enters into an agreement with Bank A, which will provide a letter of credit as security for the bonds. Corporation transferred $3 million to Bank A which Bank A sets aside in a separate account, which can only be used to pay any draws on the letter of credit. The $3 million in the special account is a pledged fund. (See also PLR 8844042.)

Negative Pledge

Under Regulations § 1.148-1(c)(3)(ii), a negative pledge is holding certain amounts pursuant to an agreement that such amounts will be maintained at a certain level for the benefit of the bondholders or a guarantor of the bonds. (See also PLR 8841027.) An amount is not treated as pledged however if the-

- Issuer or a substantial beneficiary may grant rights in the funds to a party that are superior to the rights of the bondholders or guarantor; OR

- Amounts do not exceed the reasonable needs for which they are maintained, the required level is tested no more frequently than every 6 months, AND the amounts may be spent without any substantial restrictions, other than the requirement to replenish the amounts by the next testing date.

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Other Replacement Proceeds

Replacement proceeds may arise if on the issue date, the issuer reasonably expects that:

- the bonds will be outstanding longer than reasonably necessary for the governmental purpose of the issue; AND
- there will be "available amounts" during the time that the bonds are outstanding longer than necessary

Available amounts are defined in § 1.148-6(d)(3)(iii).

A determination whether the issue will be outstanding longer than necessary is made under Regulations § 1.148-10.

The replacement proceeds are created at the beginning of each fiscal year in an amount equal to the available amounts.

Safe Harbor

Regulations § 1.148-1(c)(4)(B) includes safe harbor against creation of other replacement proceeds for the portions (if any) of an issue:

- used to finance restricted working capital;
- used to finance or refinance capital projects; OR
- that is a refunding issue

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Disposition Proceeds

Although this term is not used under § 148 or the regulations thereunder, the private activity bond rules dictate that disposition proceeds must also be analyzed under the arbitrage and rebate rules.

- Disposition proceeds are any amounts (including property such as an agreement to provide services) derived from the sale, exchange or other disposition of property (other than investments) financed with the proceeds of the issue.
- Regulations § 1.141-12(a)(4) provides that disposition proceeds must be treated as gross proceeds for purposes of § 148.

An agent examining a transaction where disposition proceeds may have resulted should analyze the transaction not only under §§ 141 and the regulations thereunder, but also under § 148 and regulations thereunder.

Subsequent Intentional Acts

Section 148(a) also provides that a bond will be treated as an arbitrage bond if the issuer intentionally uses any portion of the proceeds of the issue to acquire higher yielding investments, or to replace funds which are used directly or indirectly to acquire higher yielding investments.

Accordingly, an issuer’s reasonable expectations may not be sufficient to preserve the tax-exempt status of the bonds, if the issuer intentionally acts contrary to its expectations.

Acquiring Higher Yielding Investments

General

The computations applied to determine if a bond is an "arbitrage bond" under § 148(a) involves measuring whether any proceeds of the related bond issue were used to *acquire higher yielding investments* (or to replace funds which were used directly or indirectly to acquire higher yielding investments).

In other words, the process evaluates whether bond proceeds were invested at a yield in excess of the yield on the bonds.

A Simple Comparison

In theory, whether bond proceeds were used to acquire higher yielding investments is a simple matter of comparing the yield on the bonds to the yield on the investments that were acquired with the proceeds.

Complicated Determination

In practice, a few factors complicate the determination of whether bond proceeds were used to acquire higher yielding investments in a manner that does not comply with § 148(a):

- Various exceptions that permit the acquisition of higher yielding investments in certain circumstances
- The computations require access to and processing of substantial amounts of investment and payment data
- Evaluation of the reasonableness of the issuer's expectations at the time of issuance

Reasonable Expectations and Intentional Acts

General

Under § 148(a), arbitrage determinations are made based on the reasonable expectations of the issuer at the time of issuance of the bond. Unintentional post-issuance events that result in arbitrage earnings do not cause a bond to be an arbitrage bond (however, failure to pay rebate of arbitrage earnings caused by such events in accordance with arbitrage rebate rules may result in arbitrage bonds). Additionally intentional post-issuance actions that result in arbitrage earnings may result in arbitrage bonds.

Example: Qualification for temporary period exceptions to yield restriction (during which issuers can use bond proceeds to acquire higher yielding investments) based on expected timing of construction expenditures are based on reasonable expectations, and not on the actual timing of the expenditures.

Exception: Qualification for exceptions to arbitrage rebate requirements are generally based on the timing of the actual expenditure and not on the issuer's reasonable expectation at the time of issuance.

1993 Regulations—Certification Required

The 1993 regulations provide that an officer of the issuer responsible for issuing the bonds must in good faith certify the issuer's expectations as of the issue date. These certifications are generally included in the "tax certificate" or "arbitrage certificate" included in the bond transcript.

Under the regulations, the required certification is evidence of the issuer's expectations but does not establish any conclusions of law or any presumptions regarding either the issuer's actual expectations or their reasonableness.

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Reasonable Expectations and Intentional Acts, Continued

What are "Reasonable Expectations?"	Regulations § 1.148-1(b) provides that an issuer's expectations or actions are reasonable only if a prudent person in the same circumstances as the issuer would have those same expectations or take those same actions, based on all the objective facts and circumstances.
Subsequent Intentional Acts	Section 148(a) also provides that a bond will be treated as an arbitrage bond if the issuer intentionally uses any portion of the proceeds of the issue to acquire higher yielding investments, or to replace funds which are used directly or indirectly to acquire higher yielding investments. Accordingly, an issuer's reasonable expectations may not be sufficient to preserve the tax-exempt status of the bonds, if the issuer intentionally acts contrary to its expectations.

Temporary Periods

General

Section 148(a) provides that use of bond proceeds to acquire higher yielding investments results in the bonds being arbitrage bonds. However, such investment of proceeds during a temporary period does not cause the bonds to be arbitrage bonds.

The length of the temporary period depends upon the purpose for which the bonds are issued or the type of proceeds. Temporary periods apply to both the proceeds and replacement proceeds of an issue. Temporary periods are discussed in section 6.

Yield Reduction Payments

General

In certain circumstances, an issuer may be able to invest bond proceeds in higher yielding investments in the absence of an applicable temporary period exception and avoid having the bonds be arbitrage bonds by making a yield reduction payment. Yield reduction payments are discussed in section 9.

Minor Portion

General

Bonds will not be treated as arbitrage bonds if an amount which is the lesser of:

- $100,000 or
- 5 percent of the proceeds of the issue

is invested at a yield which is materially higher than the yield on the bonds.

(See § 148(e) and Regulations § 1.148-2(g).)

Section 3

Bond Yield

Overview

Purpose

The purpose of this section is to enable the student to define economic return, issue price, and fixed and variable yield.

Contents

This section contains the following topics:

Introduction & Basic Concepts

General

As discussed in the prior section, determining whether impermissible arbitrage has been earned on bond proceeds requires comparison of the yield on the bonds and the yield on the investments purchased with bond proceeds to determine if the proceeds have been used to acquire higher yielding investments.

Bond yield is a key component of this comparison and, thus, calculating bond yield is a core concept of this lesson.

For purposes of determining bond yield, there are two types of bond issues: fixed yield issues and variable yield issues. Under Regulations § 1.148-1(b), (i) fixed yield issue means any issue if each bond that is a part of the issue is a fixed yield bond and (ii) variable yield issue means any issue that is not a fixed yield issue.

Bond yield principles are similar for each type of issue, but calculation mechanics for variable yield issues reflect the need (not applicable to fixed yield issues) to measure variable yield at specific time intervals in order to meet yield restriction and rebate requirements.

Note: Generally, this lesson focuses on basic yield calculations. Certain advanced concepts are presented in Phase II of TEB Basic Training.

Yield—Concept

In the financial context, yield on an investment is the economic return to the investor.

Yield on an investment differs from the interest rate of the investment, although there is a relationship between interest rates and yield. In general, interest rates are used to calculate the amount of interest that is payable to an investor for an investment with a stated principal amount. On the other hand, calculation of yield requires measuring the amount that the investor paid for the investment and the timing and amount of actual principal and interest payments (note interest payment amounts are based on interest rates; this is the relationship between yield and interest rates) received by the investor. Thus, in addition to the interest rate, the return (or yield) to the investor depends upon the purchase price paid by the investor, the term of the investment, and the payment dates for principal and interest.

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Bond Yield—General Definition

Generally, as provided in Regulations § 1.148-4(b)(1)(i), for fixed yield issues, bond yield is the discount rate that, when used in computing the present value as of the issue date of all unconditionally payable payments of principal, interest, and fees for qualified guarantees on the issue and amounts reasonably expected to be paid as fees for qualified guarantees on the issue, produces an amount equal to the present value, using the same discount rate, of the aggregate issue price of the bonds of the issue as of the issue date.

In other words, yield is the discount rate that produces a present value equal to the issue price of all payments on the bonds when discounting such payments to the issue date.

In practice, this definition is adapted with adjustments and special rules applicable to characteristics of particular bonds, and also for variable yield issues.

Issue Price—Definition

For purposes of bond yield calculations in the arbitrage context, Regulations § 1.148-1(b) defines issue price as follows:

Issue price means, except as otherwise provided, issue price as defined in §§ 1273 and 1274. Generally, the issue price of bonds that are publicly offered is the first price at which a substantial amount of the bonds is sold to the public. Ten percent is a substantial amount. The issue price of bonds that are not substantially identical is determined separately.

The issue price of bonds for which a bona fide public offering is made is determined on the sale date based on reasonable expectations regarding the initial public offering price.

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Compounding Intervals

Yield is computed under the economic accrual method using any consistently applied compounding interval of not more than one year.

A short first compounding interval and a short last compounding interval may be used.

Financial Conventions

Reasonable, standard financial conventions may be used, such as the 30 days per month/360 days per year convention, as long as they are consistently applied.

Yield is expressed as an annual percentage rate that is calculated to at least four decimal places.

Regulations § 1.148-4(a).

Fixed Yield Issues

Fixed Yield Bond

According to Regulations § 1.148-1(b), a fixed yield bond is any bond whose yield is fixed and determinable on the date of issuance of the bond.

Fixed Yield Issue

According to Regulations § 1.148-1(b), a fixed yield issue is any issue if each bond that is part of that issue is a fixed yield bond.

Therefore, if the yield on any bond of the bond issue is not fixed on its issue date, then the issue is not a fixed yield issue.

Computation

Yield on a bond issue is calculated in accordance with Regulations § 1.148-4.

Regulations § 1.148-4(b) provides that yield on a fixed yield issue is the discount rate that results in the aggregate present value, as of the issue date, of all unconditionally payable payments over the life of the issue equaling the present value of the issue price as of that date.

Yield on a fixed yield issue is computed on the issue date and, except for certain specific circumstances discussed in Regulations §§ 1.148-4(b)(4) and 1.148-4(h), is not affected by subsequent events.

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Unconditional Payments

Regulations § 1.148-4(b) provides that in computing yield on a fixed yield issue, the unconditional payments may include the:

- principal payments (including call premiums on early retired bonds);
- interest payments;
- amounts paid, or expected to be paid, for a qualified guarantee; and
- amount paid, or expected to be paid, for a qualified hedging transaction

Note

This lesson provides an introduction into yield calculations and does not deal with qualified guarantees and qualified hedging transactions. Such concepts are discussed in TEB Basic Training Phase II Advanced Topics in Arbitrage.

Example 5

On January 1, 1994, City A issues an issue consisting of four identical fixed yield bonds. The total stated principal amount of the bonds is $20,000,000. The stated final maturity date of each bond is January 1, 2004. No bond is subject to redemption prior to maturity. Interest is payable on January 1 of each year at a rate of 6.0000% per annum on the outstanding principal amount. The aggregate issue price of the bonds is $20,060,000.

To compute the yield, each unconditional payments (in this case principal and interest) is treated as made on the date such payment is scheduled to be made. The yield is the discount rate at which the aggregate of the present value of each of these payments equals the issue price of the issue ($20,060,000).

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Example 5 (continued)

DATE	PRINCIPAL	INTEREST	PV (5.8731%)
1/1/1995		$1,200,000	$1,132,510
1/1/1996		1,200,000	1,068,816
1/1/1997		1,200,000	1,008,704
1/1/1998		1,200,000	951,973
1/1/1999		1,200,000	898,433
1/1/2000		1,200,000	847,903
1/1/2001		1,200,000	800,216
1/1/2002		1,200,000	755,210
1/1/2003		1,200,000	712,736
1/1/2004	$20,000,000	1,200,000	11,883,498
			20,060,000

The discount rate (compounded semiannually) at which the aggregate of the present value of all principal and interest payments equals the issue price is 5.8731%. The yield on the bond issue is therefore 5.8731%.

Bonds Subject to Mandatory or Contingent Early Redemption

According to Regulations § 1.148-4(b)(2), if a fixed yield issue is subject to mandatory or expected contingent early redemption, the yield is computed by assuming that the bonds will be redeemed on their reasonably expected early redemption date. In addition, it is assumed that the bonds will be redeemed at their value on the redemption date. Reasonable expectations are determined on the date of issue.

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Example 6

The facts are the same as in Example 5, except the bonds are subject to mandatory sinking fund redemption on January 1 of each year, beginning January 1, 2001. The bonds are redeemed at par plus accrued interest.

In computing the yield, the bonds are shown as redeemed in accordance with the mandatory redemption schedule.

DATE	PRINCIPAL	INTEREST	PV (5.8678%)
1/1/1995		$1,200,000	$1,132,569
1/1/1996		1,200,000	1,068,926
1/1/1997		1,200,000	1,008,860
1/1/1998		1,200,000	952,169
1/1/1999		1,200,000	898,664
1/1/2000		1,200,000	848,166
1/1/2001	$5,000,000	1,200,000	4,135,942
1/1/2002	5,000,000	900,000	3,714,650
1/1/2003	5,000,000	600,000	3,327,647
1/1/2004	5,000,000	300,000	2,972,407
			$20,060,000

The yield on the above issue of bonds is 5.8678% because that is the discount rate (compounded semiannually) at which the aggregate present values of the unconditional payments of principal and interest equals the issue price.

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Note

The above examples present computations of yield on basic fixed yield issues.

If a fixed yield issue has any of the following characteristics, the computation of yield is more complicated and material discussed in TEB Basic Training Phase II will apply:

- substantially identical “deep-discount” bonds subject to mandatory early redemption (Regulations § 1.148-4(b)(2)(ii));
- issues which are subject to optional early redemption with a lower “yield-to-call” (call within 5 years of the issue date, premium bonds, and stepped coupon bonds) (Regulations § 1.148-4(b)(3));
- transfer of certain rights attached to the bond (Regulations § 1.148-4(b)(4)); or
- a qualified guarantee or qualified hedge

Variable Yield Issues

General

A variable yield issue is any bond issue that is not a fixed yield issue.

If the yield on any bond in the issue is not fixed and determinable on the date of issue, the bond issue is a variable yield issue.

The yield on a variable yield issue is computed separately for each computation period.

Computation Period

The computation period may be selected by the issuer and is the period between the computation dates.

Regulations § 1.148-3(e)(1) provides that an issuer may treat as computation dates:

- the last day of any bond year ending on or before the first required rebate payment date; and
- thereafter, the end of each bond year or the end of each fifth bond year

Once selected, the issuer may not change the computation dates after the first required rebate payment.

Computation Date

The computation date is each date on which the rebate amount for an issue is computed.

Example 7

The issue date for a variable yield issue is January 1, 1993. The issuer wants to determine yield on the bonds on January 1, 1994, when construction of the project is finished. The first computation period would be from January 1, 1993, the date of issue, to January 1, 1994, the first computation date. If the issuer decides to compute yield each bond year, the next computation period is between from January 1, 1994 to January 1, 1995.

Continued on next page

Computation of Yield

The yield on a variable yield issue is computed separately for each computation period.

According to Regulations § 1.148-4(c)(1), the yield for each computation period is the discount rate that, when used in computing the present value as of first day of the computation period of all the payments of principal and interest and fees for qualified guarantees that are attributable to the computation period, produces an amount equal to the present value, using the same discount rate, of the aggregate issue price (or deemed issue price) of the bonds of the issue as of the first day of the computation period.

Payments Generally Included in the Yield Computation

Under Regulations § 1.148-4(c)(2), payments included in the yield computations are the following any amounts:

- actually paid for principal of the bond during the computation period;
- paid during the computation period for

  (i) interest accruing on the bond during such period,
  and
  (ii) interest accruing during the prior period that was included in the deemed issue price of the bond as accrued unpaid interest at the start of the current computation period; and
- properly allocable to fees for a qualified guarantee of the bond for the period
- properly allocable to a qualified hedge for the period

Actual Redemption

According to Regulations § 1.148-4(c)(2)(ii), if a bond is actually redeemed during a computation period, an amount equal to the greater of its value on the redemption date or the actual redemption price is included as a payment on the actual redemption date.

Continued on next page

Bonds Outstanding

According to Regulations § 1.148-4(c)(2)(iii), if a bond is outstanding at the end of a computation period, a payment equal to the bond's value is taken into account on the last day of the period. Generally, for a variable rate bond remarketed at par, the value is par plus accrued interest, according to Regulations § 1.148-4(e)(1).

Deemed Issue Price

According to Regulations § 1.148-4(c)(2)(iv), a bond outstanding at the end of a computation period is treated as if it were reissued on the next day for a deemed issue price at a value equal to its value on the day before.

Example 8

On January 1, 1994, City issues variable yield bonds in the principal amount of $1,000,000 at par (i.e., with an issue price of $1,000,000). The stated maturity date of the bonds is January 1, 2000. Actual principal and interest payments on the bonds prior to January 1, 1999 are set forth in the table below. From June 1, 1998 to January 1, 1999, $30,000 interest accrues on the bonds. On June 1, 1999, the issuer pays $65,000 in interest. On January 1, 2000, principal in the amount of $1,000,000 and interest in the amount of $38,000 is paid and the bonds are no longer outstanding.

First Computation Period. The issuer computes rebate on January 1, 1999 (timing of required rebate payments is discussed on another section of this lesson). The computation period for such computation date is from January 1, 1994 to January 1, 1999.

The issuer should include the following payments in the yield computation:

- The interest actually paid on June 1, 1994, 1995, 1996, 1997, and 1998.

- Because the issue is outstanding on January 1, 1999, the computation date, it is treated as redeemed on that date for purposes of calculating yield. The amount included on January 1, 1999, is its value ($1,000,000 plus accrued and unpaid interest of $30,000).

Continued on next page

Example 8
(continued)

DATE	PRINCIPAL	INTEREST	PV (5.44142%)
6/1/1994		30,000	29,336,36
6/1/1995		55,000	50,972.00
6/1/1996		57,000	50,064.26
6/1/1997		56,000	46,614.93
6/1/1998		45,000	35,500.42
1/1/1999	$1,000,000	30,000	787,512.03
			1,000,000

The yield on the issue during the first computation period is the discount rate at which the aggregate of the present value as of January 1, 1994 of all payments made during this period ($30,000, $55,000, $57,000, $56,000,
$45,000 and $1,030,000) equals the present value of the issue price of the issue ($1,000,000) on January 1, 1994. The bond yield for the first computation date is 5.44142%.

Second Computation Period. The bonds are treated as reissued on January 1, 1999 with a deemed issue price of $1,030,000. The payments included in the yield computation for this period include:

- Interest paid during the computation period ($65,000 on June 1, 1999 and $38,000 on January 1, 2000)

- Redemption price of the bonds on January 1, 2000 ($1,000,000)

Continued on next page

Example 8 (continued)

The yield on the issue during the second computation period is the discount rate at which the aggregate of the present value as of January 1, 1999 of all payments made during this period ($65,000, $38,000, and $1,000,000) equals the present value of the deemed issue price of the issue ($1,030,000) on January 1, 1999. The bond yield for the second computation date is 7.22364%.

DATE	PRINCIPAL	INTEREST	PV (7.22364%)
1/1/1999			
6/1/1999		65,000	63,106.24
1/1/2000	$1,000,000	38,000	966,893.76
			1,030,000.00

Note

This lesson includes yield computations for a basic variable yield bond issue and does not address fees for qualified guarantees or qualified hedges. For a discussion of these concepts see TEB Basic Training Phase II.

Section 4

Investment Yield and Investment Classes

Overview

Purpose

This section explains the general rules for calculating yield on investments of bond proceeds and defines the different investment classes (purpose investments, nonpurpose investments, and program investments).

General Rule

Regulations § 1.148-5(b)(1) provides that yield on investments is calculated in the same manner as the yield on bonds.

Generally, this means that the yield on an investment allocated to an issue is computed under the economic accrual method, using the same compounding interval and financial conventions used to compute the yield on the issue.

Thus, the yield on an investment allocated to an issue is the discount rate that, when used in computing the present value of the date the investment is first allocated to the issue of all unconditionally payable receipts from the investment, produces an amount equal to the present value of all unconditionally payable payments for the investment.

Payments include amounts to be actually or constructively paid to acquire the investment, and receipts means amounts to be actually or constructively received from the investment, such as earnings and return of principal.

The yield on a variable rate investment is determined in a manner comparable to the determination of the yield on a variable rate issue.

Continued on next page

Class of Investments

Regulations § 1.148-5(b)(2) provides that for purposes of yield restriction rules, yield is computed separately for each class of investments. Each of the following is a separate class of investments:

a) Each category of yield restricted purpose investments and program investments that is subject to a different definition of materially higher under Regulations § 1.148-2(d)(2);

b) Yield restricted nonpurpose investments; and

c) All other nonpurpose investments

Purpose Investment

A purpose investment is an investment that is acquired to carry out the governmental purposes of the bond issue.

Example: Acquisition of a residential rental facility by a housing authority is a purpose investment.

Nonpurpose Investment

A nonpurpose investment is any investment property that is not considered a purpose investment.

Program Investments

A program investment is a purpose investment that is part of a governmental program and generally represents one or more loans to a substantial number of persons representing the general public, States or political subdivisions, 501(c)(3) organizations, or persons who provide housing and related facilities. Program investments include qualified student loans, single family mortgage loans, loans to 501(c)(3) organizations, and loans to persons who provide multifamily housing.

Continued on next page

Valuation of Investment

When calculating yield on the investments, the investments must be valued in accordance with Regulations § 1.148-5(d).

Note

This section does not address the valuation or computation of yield on investments. For a description of yield on investments, see TEB Basic Training Phase II.

Section 5

Yield Restriction Rules

Overview

Purpose This section explains basic yield restriction rules.

Continued on next page

Overview, Continued

Contents

This section contains the following topics:

General

Section 148(a) prohibits use of bond proceeds to acquire "higher yielding investments."

The policy behind the prohibition is to prevent municipal issuers from issuing tax-exempt debt bearing lower interest rates than taxable debt, and then investing the proceeds in taxable securities having a higher investment return.

In order to determine whether the investment of proceeds will result in the bond being an arbitrage bond, the agent must determine the "proceeds" of the bond and determine the "yield" on the bonds and the investments.

- Section 2 in this lesson contains a summary description of "proceeds" and another lesson in TEB Basic Training Phase I provides detailed explanation of "Proceeds & Allocations."

- Section 3 in this lesson and TEB Basic Training Phase II present the computation of yield on fixed yield issues and variable yield issues.

Higher Yielding Investments

Definition

If the investment property acquired with the proceeds of the bond issue produces a yield which is “materially higher” than the yield on the bond issue, then the proceeds of the bond issue are used to acquire higher yielding investments.

To determine whether the bond is an arbitrage bond, there must first be a determination of whether investment property is acquired with the proceeds of the bond. If investment property is acquired with bond proceeds, then there must be a determination of whether the investment property produces a yield which is materially higher than the yield on the bonds.

Acquisition of investment property with proceeds of a bond, in and of itself, does not result in the bond being an arbitrage bond. A bond is an arbitrage bond only if the yield on the acquired investment property is materially higher than the yield on the bond.

Investment Property

Definition

Section 148(b)(2) provides that investment property generally includes any:

- security,
- obligation,
- annuity contract, or
- investment-type property, and
- in the case of bonds that are not private activity bonds, any residential rental property for family units which is not located in the jurisdiction of the issuer and which is not acquired to implement a court ordered or approved housing desegregation plan.

Continued on next page

Tax Exempt Bonds

Section 148(b)(3)(A) provides that although any security is investment property under § 148(b)(2), tax-exempt bonds are generally not treated as investment property. However, for purposes of bonds, other than specified private activity bonds defined in § 57(a)(5)(C), investment property includes specified private activity bonds defined in § 57(a)(5)(C).

Specified private activity bonds defined in § 57(a)(5)(C) are bonds, the interest income on which is subject to alternative minimum tax ("AMT bonds").

Investment Property

Bond Issue	Investments Acquired: AMT	Investments Acquired: Non-AMT
AMT	no	no
Non-AMT	yes	no

Accordingly, if proceeds of bonds that are not subject to the alternative minimum tax ("non-AMT bonds") are used to acquire AMT bonds, then the proceeds are used to acquire investment property. If proceeds of AMT bonds are used to acquire either AMT or non-AMT bonds, those investments are not considered investment property.

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Investment-Type Property

Investment-type property may include any property that is held principally as a passive vehicle for the production of income.

For this purpose, production of income includes any benefit based on the time value of money, including a benefit from making a prepayment.

Certain prepayments that do not give rise to investment-type property are described in Regulations § 1.148-1(e).

Example 9

City Y issues bonds for its governmental purposes and uses a portion of the bonds to prepay its electronic equipment maintenance contract for the next two years. Prepayment on substantially the same terms is made by persons similarly situated to City Y, which persons have not issued tax-exempt bonds. This prepayment is not an acquisition of investment-type property.

Materially Higher Yield

General Rule

According to Regulations § 1.148-2(d)(2)(i), if an investment purchased with proceeds of tax-exempt bonds produces a yield which exceeds one-eighth of one percent above the bond yield, the yield on the investment is materially higher than the yield on the bonds.

This general rule applies for both purpose investments and nonpurpose investments.

Exceptions to General Rule

Regulations § 1.148-2(d)(2) provides exceptions to the general rule for certain investments listed below:

TYPE OF INVESTMENT	MEANING OF MATERIALLY HIGHER
Refunding Escrow	one-thousandth of one percent
Replacement Proceeds	one-thousandth of one percent
Program Investments, other than student loans	one and one-half percent
Qualified Student Loans that are program investments	two percent
Qualified Mortgage Loans	one and one-eighth of one percent
Tax-exempt Obligations that are NOT considered investment property	there is no yield limitation

Section 6

Temporary Periods

Overview

Purpose

This section identifies temporary periods during which the use of bond proceeds to acquire higher yielding investments will not cause the bonds to be arbitrage bonds.

General Rule

Section 148(a) provides that use of bond proceeds to acquire higher yielding investments results in the bonds being arbitrage bonds. However, such investment of proceeds during an initial temporary period does not cause the bonds to be arbitrage bonds. (See also Regulations § 1.148-2(a).)

Under Regulations § 1.148-2(e), the length of the temporary period generally depends upon the purpose for which the bonds are issued or the type of proceeds. Temporary periods apply to both the proceeds and replacement proceeds of an issue.

Reasonable Expectations

Qualification for temporary period exceptions to yield restriction is generally based on the issuer's reasonable expectations regarding the expected timing of expenditures and not on the actual timing of expenditures.

Contents

This section contains the following topics:

Capital Projects

General Rule

According to Regulations § 1.148-2(e)(2)(i), the net sale proceeds and investment proceeds of an issue reasonably expected to be allocated to capital projects may be invested at an unrestricted yield for a 3-year temporary period.

The 3-year temporary period begins on the date of issuance of the bonds.

Reasonable Expectations

The 3-year temporary period only applies if, on the date of issuance, the issuer reasonably expects to meet the:

- expenditure test,
- time test, and
- due diligence test

These tests are applied separately to each conduit loan financed by the issue.

Expenditure Test

According to Regulations § 1.148-2(e)(2)(i)(A), the expenditure test is met if at least 85 percent of the net sale proceeds of the issue are allocated to expenditures on the capital project by the end of the 3-year temporary period.

Time Test

According to Regulations § 1.148-2(e)(2)(i)(B), the time test is met if the issuer incurs a substantial binding obligation to a third party to expend at least 5 percent of the net sale proceeds on the capital project within 6 months of the date of issuance of the bonds.

A construction contract with a general contractor or a developer of the project or a purchase contract with the seller of the facility stating that the expenditure of proceeds will occur within six months is sufficient for this test.

Continued on next page

Due Diligence Test

According to Regulations § 1.148-2(e)(2)(i)(C), the due diligence test is met if the completion of the project and allocation of net sale proceeds to expenditures proceed with due diligence.

Net Sale Proceeds

Under Regulations § 1.148-1(b), net sale proceeds means sale proceeds less the portion of sale proceeds attributable to a reasonably required reserve or replacement fund and minor portion.

5-Year Temporary Period

The 3-year temporary period may be extended to 5 years in certain circumstances. In such case, the issuer and a licensed architect or engineer must certify that a period longer than 3 years is necessary to complete the capital project.

Certification

An officer of the issuer must certify the reasonable expectations of the issuer. The certification must state the facts and estimates that form the basis of the expectations.

Any intentional actions by the issuer or conduit borrower which are contrary to the reasonable expectations stated in the certification may result in the bond being an arbitrage bond. (See § 148(a) and Regulations §§ 1.148-2(b)(2) and (c).)

Mortgage Revenue Bonds

Qualified mortgage bonds and qualified veterans' mortgage bonds can qualify for the 3-year temporary period under the general rule provided in Regulations § 1.148-2(e)(2)(i).

Restricted Working Capital Expenditures

Definition

Restricted working capital expenditures are those subject to the rule in Regulations § 1.148-6(d)(3)(i). Proceeds of an issue may only be allocated to restricted working capital expenditures to the extent that such working capital expenditures exceed other amounts available to the issuer or conduit borrower as of the date of the allocation ("proceeds-spent-last rule").

General Rule

According to Regulations § 1.148-2(e)(3)(i), proceeds of a bond issue that are expected to be used for restricted working capital expenditures within 13 months of the date of issuance, may be invested without regard to yield restriction during those 13 months.

Exception for TRANs

According to Regulations § 1.148-2(e)(3)(ii), the 13-month temporary period for restricted working capital expenditures may be extended for tax and revenue anticipation notes ("TRANs") if:

- The TRANs are expected to be paid from tax revenues for a single fiscal year; and
- The TRANs will mature by the earlier of two years after the issue date or sixty days after the last date the tax payments are due

For TRANs meeting the above requirements, the temporary period is extended to the maturity date of the issue.

Continued on next page

Exception for TRANS (continued)

Just as in any other bond issue, the reasonable expectations of the issuer as of the issue date are important to determine whether the bond issue qualifies for the 13-month or the extended temporary period.

The expectations of the issuer for its allocations to restricted working capital expenditures must be made in accordance with the proceeds-spent-last rule. The issuer must therefore expect that after spending all other amounts available to it for such expenditures, it will be able to spend proceeds of bonds or TRANs within the applicable temporary period.

Pooled Financings

Definition

Section 149(f)(6)(A) provides that a pooled financing is any bond issue the proceeds of which are reasonably expected, at the time of issuance, to be used to make loans to two or more unrelated borrowers.

See TEB Basic Training Phase III for additional description of pooled financings.

General Rule

Section 148(c)(2)(A) provides a 6-month temporary period while the proceeds are held by the issuer. Therefore, if the proceeds of a pooled financing issue are loaned to two or more borrowers for a qualified purpose, the proceeds may be invested by the issuer for up to 6 months without regard to yield limitation. (See also Regulations § 1.148-2(e)(4)(i).)

Exception for Construction Financing

If any portion of the proceeds of the pooled financing are used to make or finance loans for construction expenditures, the temporary period, while the proceeds are held by the issuer is increased to 2 years.

(See § 148(c)(2)(C) and Regulations § 1.148-2(e)(4)(iii).)

Temporary Period After Proceeds Loaned

According to Regulations § 1.148-2(e)(4)(i), the 6-month rule and the 2-year rule described above, only apply to the bond proceeds invested by the issuer prior to making loans. After the proceeds are loaned to a borrower, the temporary period depends upon the expected use of bond proceeds (such as, capital project, working capital expenditures, etc.)

Any otherwise available temporary period for proceeds held by a borrower is reduced by the period of time during which the proceeds were held by the issuer, before being loaned.

Continued on next page

Example 10

Authority X issues a bond issue which properly qualifies as a pooled financing. The temporary period for such financing would be 3 years under Regulations § 1.148-2(e). The proceeds are loaned to Conduit Borrower A, Conduit Borrower B, and Conduit Borrower C, within 3 months, 5 months, and 6 months, respectively, of the date of issuance of the bonds. Conduit Borrower A has an additional temporary period of 33 months, Conduit Borrower B has an additional temporary period of 31 months, and Conduit Borrower C has an additional temporary period of 30 months after the date such conduit borrower receives the proceeds of the bonds.

Loan Repayments

Proceeds received by the issuer as repayment of loans from the conduit borrowers may be used to make new loans. Such proceeds of repayments may be invested without regard to yield limitation for 3 months from the date of the repayments. (See § 148(c)(2)(B) and Regulations § 1.148-2(e)(4)(ii)(A).)

Mortgage Revenue Bonds

Section 148(c)(2)(D) provides that although qualified mortgage bonds and qualified veterans' mortgage bonds are pooled financings, the 6-month temporary period does not apply to them.

Qualified mortgage bonds and qualified veterans' mortgage bonds qualify for the 3-year temporary period under the general rule provided in Regulations § 1.148-2(e)(2)(i).

Temporary Period for Other Proceeds

Replacement Proceeds	According to Regulations § 1.148-2(e)(5)(i), replacement proceeds qualify for a 30-day temporary period from the date the proceeds are first treated as replacement proceeds.
Bona Fide Debt Service Fund	According to Regulations § 1.148-2(e)(5)(ii), amounts in a bona fide debt service fund qualify for a 13-month temporary period. If only a portion of the fund qualifies as a bona fide debt service fund, then such portion qualifies for the 13-month temporary period.
Investment Proceeds	According to Regulations § 1.148-2(e)(6), investment proceeds qualify for a 1-year temporary period from date of receipt.
Other Amounts	According to Regulations § 1.148-2(e)(7), gross proceeds not otherwise qualifying for a special temporary period exception under § 148(c) or Regulations § 1.148-2(e), qualify for a 30-day temporary period from date of receipt.

Section 7

Reasonably Required Reserve or Replacement Funds

Overview

Purpose

This section explains qualification requirements for a reasonably required reserve or replacement fund.

General Rule

Amounts held in a reasonably required reserve or replacement fund may be invested without regard to yield limitation.

(See § 148(d)(1) and Regulations § 1.148-2(f)(2)(i).)

Definition

According to Regulations § 1.148-2(f)(2)(ii), a reserve fund is a reasonably required reserve or replacement fund if it does not exceed the least of:

- 10 percent of the stated principal amount of the issue;
- Maximum annual debt service on the issue; or
- 125 percent of the average annual debt service on the issue

A reserve or replacement fund may be funded with moneys other than sale proceeds of the bond issue. Therefore, to determine whether the bond issue meets the yield restriction requirements, a determination must be made as to which funds constitute a reserve fund. Only the portion of the fund meeting the requirements stated above qualifies as a reasonably required reserve or replacement fund.

Special rules apply for bonds issued for more than a de minimis amount of discount or premium.

Continued on next page

Limitations on Use of Sale Proceeds

If sale proceeds in excess of 10 percent of the stated principal amount of the bond issue are used to fund a reserve or replacement fund, the bond issue consists of arbitrage bonds.

For the bonds to be arbitrage bonds, it is <u>not</u> necessary that the proceeds of the bonds in such a reserve fund be invested in higher yielding investments.

(See § 148(d)(2) and Regulations § 1.148-2(f)(1)).

Special rules apply for bonds issued for more than a de minimis amount of discount or premium.

Example 11

County A issues $10 million stated principal amount of bonds at par. It deposits $1 million of the sale proceeds into a reserve fund. County A has never issued bonds before and does not have a good credit rating. The bondholders require that County A deposit an additional $250,000 of its own moneys into the reserve fund. There are no other reserve funds established by County A as security for the bonds.

Maximum annual debt service on the bonds and 125 percent of the average annual debt service on the bonds both exceed $1m. Under the "least of" test described above, the maximum reasonably required reserve or replacement fund is $1 million ($10m stated principal amount x 10%). This amount may be invested without regard to yield limitation. County A may also deposit $250,000 of its own money in the reserve fund, however, such amount is not part of the reasonably required reserve or replacement fund and is subject to yield restriction

Example 12

Facts are the same as Example 11, except instead of using $1,000,000 of sale proceeds and $250,000 of its own moneys to fund the reserve, County A used $1,250,000 of sale proceeds to establish a reserve fund. Because County A used more than 10 percent of the stated principal amount of the bonds to establish a reserve fund, the bonds are arbitrage bonds. It does not matter whether County A invests any of this amount in investments which have a yield above the bond yield.

Section 8

Waivers Permitted

General Rule

Temporary Periods

On or before the issue date, an issuer may elect to waive the right to invest in higher yielding investments during any temporary period or as part of a reasonably required reserve fund.

Minor Portion

At any time, an issuer may waive the right to invest in higher yielding investments as part of a minor portion.

(See Regulations § 1.148-2(h).)

Section 9

Coordination with Rebate Rules

Overview

General Rule

As stated in this lesson, bonds are arbitrage bonds if on the date of issuance the issuer reasonably expects to invest the proceeds in higher yielding investments.

However, during the temporary period the issuer or conduit borrower may invest proceeds in higher yielding investments.

Although any arbitrage earnings received by the issuer during the temporary period may not result in the bonds being arbitrage bonds, the issuer is generally not permitted to retain such arbitrage earnings.

Whether an issuer can retain the arbitrage earnings or whether it must rebate such earnings to the United States must be determined in each case. The rules regarding rebate are discussed in section 10.

Continued on next page

Rebate/Yield Reduction Payments

Generally, after any applicable temporary period, bond proceeds must be yield restricted. Yield restriction can be achieved in two ways— investment of proceeds:

- in securities that do not exceed the permitted yield; or
- above the permitted yield and making yield reduction payments. (Note that under Regulations § 1.148-5(c)(3), yield reduction payments may be made only for certain types of proceeds.)

Rebate and yield reduction payments are both recognized by the other. In other words, payment of rebate may be included in computing the yield on investments and vice versa. In many cases, making a rebate payment will also satisfy yield restriction requirements. It is possible, however, that a rebate payment will not fully satisfy yield restriction or even that no rebate payment at all is due, but a yield reduction payment is required. This concept is covered more fully in TEB Basic Training Phase II.

Summary

The rebate rules have the same basic purpose as yield restriction. Any arbitrage that is earned must be paid over to the United States unless an exception applies. There are two types of exceptions: the small issuer exception and the spending exceptions.

If none of the exceptions applies, then the amount of rebate due must be computed, which is a multi-step process.

Section 10

Rebate Concepts & Historical Perspective

Overview

Rebate in General

The rebate rules have the same basic purpose as yield restriction. They are designed to remove incentives for the issuance of arbitrage motivated bonds.

In general, the rebate rules require that arbitrage profits earned from investing proceeds of an issue in nonpurpose investments must be paid to the United States as rebate unless a specific exception to the rebate requirement applies to the issue. Otherwise, the bonds will be arbitrage bonds.

Small issuer or spending exceptions may apply to exclude certain arbitrage profits from the rebate requirement. For example, an issuer that places certain proceeds of an issue in a project or construction fund may not be required to rebate arbitrage earned on the proceeds if the proceeds are expended in a timely fashion (as defined in the spending exceptions) on the project financed by the issue.

The payment of rebate is a requirement that must be met for interest on bonds to be excludable from gross income.

Historical Perspective

General

The first rebate requirements, enacted in 1980 and in 1984, applied only to mortgage revenue bonds and industrial development bonds. Major changes, however, were made in the Tax Reform Act of 1986. The 1986 Act contained a variety of restrictions on tax-exempt bonds, including tougher arbitrage rules under new § 148.

Code Changes— § 148(f)

Section § 148(f) extended the rebate rules to all categories of tax-exempt bonds.

Instead of the "reasonable expectation" standard, § 148(f) looks to actual investment of bond proceeds (i.e. what really happens, not just what the issuer predicts will happen).

The exceptions in the 1969 Act that permit unrestricted yield under certain conditions are generally retained by the 1986 Act, but investment earnings received are subject to the rebate rules of § 148(f).

Example 14

An issuer can fund a reasonably required reserve or replacement fund ("4-R Fund") that does not have to be yield restricted. The fund can earn arbitrage without causing the related bonds to be arbitrage bonds. The issuer, however, cannot keep the arbitrage earnings. They must be rebated unless an exception for rebate applies, or else the bonds will be arbitrage bonds.

Rebate Regulations

The first rebate regulations were issued in January 1985 as Regulations §1.103-15AT. These regulations applied a rebate requirement to certain types of industrial development bonds under former § 103(c)(6)(D) and are now of limited significance.

Continued on next page

1989 Temporary Regulations

Temporary regulations under § 148 were issued in May 1989. These regulations (which appeared at Regulations §§ 1.148-0T through 1.148-9T) focused on the new rebate requirement under § 148(f). For the most part, the
1979 arbitrage regulations continued to be effective and provided the rules for yield restriction. In some respects, however, the May 1989 regulations superseded the 1979 regulations.

The May 1989 regulations were strenuously criticized by State and local governments who viewed the regulations as:

- too complex,
- poorly organized,
- lacking guidance on fundamental issues, and
- overly detailed in their treatment of some obscure abusive transactions

Another criticism was that no real attempt was made to mesh the 1979 arbitrage regulations with the new rebate rules. This made the two sets of regulations somewhat difficult to read together. For example, the May 1989 regulations use certain newly defined terms that are not the same as the comparable terms under the 1979 regulations.

1991 Amendments

In response to these criticisms, simplifying amendments were issued in May 1991. This regulation (referred to as the “1991 bullet regulation”) was a “quick fix” of the worst problems with the May 1989 rebate regulations and was not a complete rewrite.

Continued on next page

1992 Proposed Regulations

In January 1992, proposed regulations were issued on rebate accounting rules, rebate spending exceptions and refunding rules. The accounting rules and the spending exceptions rules were new. The refunding rules significantly changed the rules under the May 1989 regulations.

In May 1992, the proposed regulations were finalized, along with the rest of the May 1989 temporary regulations, with some changes.

In November 1992, new proposed regulations were issued under § 148. These regulations were a complete rewrite and reorganization of the 1979 arbitrage regulations and the May 1992 rebate regulations.

1993 Final Regulations

The 1992 proposed regulations were finalized in June 1993.

The new regulations mesh the yield restriction and rebate rules, and are simpler and better organized than the old regulations.

The regulations achieve simplification in part by relying heavily on general anti-abuse rules.

The regulations have been changed and revised, in part, by temporary and final regulations issued in 1994 and 1997.

Continued on next page

2007 Proposed Regulations

In 2007, proposed regulations making a number of discrete changes to the existing regulations were published (REG-106143-07, September 26, 2007). Certain more substantive changes, which are discussed in further detail in the preamble to the proposed regulations and which are fully set forth in the proposed regulations, include:

- Hedges based on taxable interest rates. The proposed regulations make revisions to accommodate certain hedges in which floating payments under the hedge are based on a taxable interest rate and to clarify that bonds covered by such a hedge are ineligible for treatment as fixed yield bonds under the special hedging rule in §1.148-4(h)(4).

- Joint Bond Yield Authority. The proposed regulations remove the provision in the Existing Regulations that permits the IRS Commissioner to authorize a single yield computation on multiple bond issues.

- Electronic GIC Bidding. The proposed regulations revise the bidding safe harbor for establishing the fair market value of guaranteed investment contracts (GICs) to accommodate electronic bidding.

- Refunds of Overpayments of Rebate. The proposed regulations clarify that the amount that an issuer is entitled to receive under a rebate refund claim is the excess of the total amount actually paid over the rebate amount.

2013 Proposed Regulations

In 2013, proposed regulations making additional discrete changes to the existing regulations were published (REG-148659-07, September 16, 2007). Significant changes, which are discussed in further detail in the preamble to the proposed regulations and which are fully set forth in the proposed regulations, include:

- Working capital expenditures. The proposed regulations modify the safe harbors against creation of other replacement proceeds by shortening the safe harbor for short term working capital financings and adding a new one for longer term working capital financings. They also remove an existing restriction on financing a working capital reserve.

- Modification of qualified hedge. The proposed regulations simplify the rules for determining when a modification to a qualified hedge results in a deemed termination of that hedge.

2014 Regulatory Change

Under final regulations published November 13, 2014, an issuer has a deadline to file a rebate refund claim which is two years after the final computation date for the issue to which the overpayment relates.

2015 Proposed Regulations

In 2015, proposed regulations redefining issue price were published (REG-138526-14, June 24, 2015). As defined in the existing regulations, issue price of bonds that are publicly offered is the first price at which a substantial amount of the bonds is sold to the public. The existing regulations define substantial amount as ten percent and apply a reasonable expectations standard (rather than a standard based on actual sales) for this purpose. The proposed regulations apply an actual sales standard and, as an alternative to the actual sales standard, permit an issuer to treat the initial offering price to the public as the issue price, provided certain requirements are met.

Section 11

General Arbitrage Rebate Rules

Overview

General Rule

Section 148(f) requires that certain earnings on nonpurpose investments allocable to the gross proceeds of an issue be paid to the United States to prevent the bonds in the issue from being arbitrage bonds.

Regulations § 1.148-3(a) provides that the arbitrage that must be rebated is based on the difference between the amount actually earned on nonpurpose investments and the amount that would have been earned if those investments had a yield equal to the yield on the issue.

Regulations § 1.148-3(b) provides that as of any date, the rebate amount for an issue is the excess of the future value, as of that date, of all receipts on nonpurpose investments over the future value, as of that date, of all payments on nonpurpose investments.

Example 14

If an issue of bonds has a yield of 8 percent, and the proceeds of the issue are invested at a yield of 10 percent, the issuer must pay the 2 percent investment earnings, plus any additional earnings from investing that 2 percent, to the United States in order for the bonds to not be arbitrage bonds.

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Application of Rebate Rules

Compliance with the rebate rules can be analyzed through a series of steps as listed in the table below.

Step	Action
1	Determine compliance with small issuer exception.
2	Identify gross proceeds of the issue.
3	Identify the funds in which gross proceeds of the issue are held.
4	Identify gross proceeds of the issue not qualifying for an exception.
5	Determine computation and payment dates.
6	Calculate yield on the issue.
7	Identify the nonpurpose investments to which gross proceeds are allocated.
8	Create a schedule of the cash flows of the nonpurpose investments (payments for and receipts from nonpurpose investments).
9	Future value the cash flows using the yield of the issue.
10	Determine the sum of the future values of all the payments and the future value of all the receipts to determine the total rebate amount.
11	Confirm timely payment.

Exceptions to Rebate

There are two major types of exceptions to rebate:

- small issuer exception
- spending exceptions

In addition, the Code and the regulations provide certain additional exceptions to simplify computations**.**

Section 12 discusses the small issuer exception. Section 13 explains the spending exceptions. Section 14 discusses the bona fide debt service fund exception.

Section 12

Small Issuer Exception

Qualifications

Step One – Small Issuer Exception

The first step in determining compliance with the rebate requirements is to determine whether an issue qualifies for the small issuer exception.

General Rule

Under § 148(f)(4)(D), governmental bonds issued by a governmental unit that does not expect to issue more than $5 million of governmental bonds in that calendar year are excepted from the rebate requirements, but not yield restriction rules.

To Qualify

In order to qualify for the small issuer exception:

- the issuer must be a governmental unit with general taxing powers;
- no part of the issue can be a private activity bond;
- 95 percent or more of net proceeds are to be used for local governmental activities of the issuer or of governmental units located within the issuer's boundaries; and
- the issuer must either -
    - reasonably expect, as of the issue date, that the aggregate face amount of all tax-exempt bonds (other than private activity bonds) issued by it during that calendar year will not exceed $5 million

      OR
    - actually issue tax-exempt bonds (other than private activity bonds) during that calendar year the aggregate face amount of which does not exceed $5 million

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Size Limit

The $5 million size limit applies to the sum of the following:

- The issue to which the small issue exception applies;
- Previous issues of governmental bonds in the same calendar year;
- Issues of governmental bonds reasonably expected to be issued or actually issued in the same calendar year; and
- Issues by related entities that are subject to aggregation

Aggregation Rules

Regulations § 1.148-8(c)(2) sets forth the following aggregation rules for purposes of applying the $5 million size limitation:

- An issuer and all entities (other than political subdivisions) that issue bonds on behalf of that issuer are treated as one issuer.
- Any bonds issued by an entity that is directly or indirectly controlled by the issuer (a "subordinate entity") is generally treated as issued by the issuer. There is, however, an exception in certain instances in which specific allocations of the bonds are made by the issuer.
- An entity formed or availed of to avoid the $5 million size limitation and all entities that would benefit from the avoidance are treated as one issuer.

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Special Rules for Refundings

Under § 148(f)(4)(D)(v), any portion of an issue issued to refund other bonds must also meet certain requirements with respect to length of maturity:

- the face amount of the refunding issue is no greater than $5M
- the refunded bonds met the small issuer exception
- the average maturity date of the refunding bonds is not later than the average maturity date of the bonds to be refunded by the issue; and no refunding bond has a maturity date which is later than 30 years after the date the original bond was issued

Current Refunding

Under § 148(f)(4)(D)(iii), a current refunding is not taken into account in determining the amount of bonds issued in the calendar year to the extent that the amount of the refunding bonds does not exceed the outstanding amount of the refunded bonds.

Special Limits for School Construction Bonds

The Taxpayer Relief Act of 1997 increased the $5 million limitation up to an additional $5 million for bonds issued to finance construction of public school facilities. This increased limit applies to bonds issued on or after January 1, 1998.

The Economic Growth and Tax Relief Reconciliation Act of 2001 increased the $5 million limitation up to an additional $10 million for bonds issued to finance construction of public school facilities. This increased limit applies to bonds issued on or after January 1, 2002.

For purposes of this exception, "construction" includes reconstruction and rehabilitation. (§ 148(f)(4)(C)(iv)).

Continued on next page

Qualifications, Continued

Example 15

On March 1, 2002, School District issues $12 million of bonds to construct a new high school. On August 1, 2002, School District issues $3 million of bonds to purchase school busses and computers. Both issues will qualify for the small issuer exception.

Example 16

The facts are the same as Example 16, however $4 million of bonds are issued for busses and computers. Neither issue qualifies for small issuer exception.

Example 17

In February 2002, School District issues $4 million of bonds to construct additions for an elementary school. School District may issue up to $5 million more in bonds in 2002 for non-public school construction items for both issues to qualify for the small issuer exception.

Yield Restriction Rules Still Applicable

An issue meeting the small issuer exception is exempt from the rebate requirement; however, the issue is still subject to the yield restriction rules.

An issue could meet the small issuer exception, but still be an arbitrage bond if, for example, the reserve fund is not properly sized or yield reduction payments are not made on a post-temporary period construction fund.

Continued on next page

Section 13

Spending Exceptions

Overview

Introduction

Spending exceptions may apply to except from the rebate requirement arbitrage earned on certain proceeds of an issue if the issuer spends the proceeds in accordance with prescribed 6-month, 18-month, or 2-year schedules. The spending exceptions sometimes apply only to a portion of an issue. For example, the spending exceptions generally don't apply to amounts held in a reasonably required reserve or replacement fund. Even if investment earnings on some proceeds are excepted from rebate, rebate may still be due on investment earnings on other proceeds. Thus, in the process of determining compliance with the rebate requirement, steps one and two shown below must be taken prior to applying the spending exceptions.

Contents

This section contains the following topics:

Continued on next page

Step Two – Identify Gross Proceeds

Gross proceeds of an issue must be determined. Gross proceeds include any sales proceeds, investment proceeds, transferred proceeds, and replacement proceeds of the issue. These terms are defined in Regulations §§ 1.148-1(b) and (c) and 1.148-9.

Step Three – Identify Funds

The funds in which proceeds of an issue are held must be identified (e.g. project fund, reserve fund, debt service fund).

Step Four – Identify Gross Proceeds Not Excepted

Upon completing these steps, it must then be determined whether any gross proceeds of an issue are not excepted under the spending exception rules of Regulations § 1.148-7 or any other exception (e.g., bona fide debt service fund exception).

The rules of Regulations § 1.148-6(d) for allocating gross proceeds to expenditures are pertinent when applying the spending exceptions rules. Regulations § 1.148-6(d)(1)(ii) provides that an allocation of gross proceeds to an expenditure must involve a current outlay of cash for a governmental purpose of the issue.

When, in addition to bond proceeds, funds from other sources are being spent on a project, an issuer may have to determine which amounts are spent first for the project. Note in particular the rules in Regulations § 1.148-6(d)(3) that generally provide that, for working capital expenditures, bond proceeds are treated as being spent last.

Six-Month Exception

General Rule

Section 148(f)(4)(B) provides that an issue meets the rebate requirements if:

- The gross proceeds (as the term is modified for purposes of this exception) of the issue are allocated to expenditures for the governmental purposes of the issue within the 6-month period beginning on the issue date; and
- The rebate requirement is met for amounts not required to be spent within the 6-month spending period (excluding earnings on a bona fide debt service fund).

Amounts Not Considered Gross Proceeds

For purposes of the six-month exception:

- Among other amounts, "gross proceeds" does not include:
  - o Amounts in a bona fide debt service fund;
  - o Amounts in a reasonably required reserve or replacement fund; or
  - o Gross proceeds that arise after the 6-month period and that were not reasonably anticipated on the date of issuance. (See Regulations § 1.148-7(c)(3).)
- The rebate requirement must be met for (1) amounts in a reasonably required reserve or replacement fund, and (2) unanticipated gross proceeds arising after the six-month period, but not for earnings on a bona fide debt service fund. This is the case regardless of the fact that all of the gross proceeds of the issue (as defined for purposes of this exception) are spent within the initial six-month period.

Continued on next page

Six-Month Exception, Continued

Applicability

The exception applies to all types of bond issues (i.e., governmental, private activity, new money, and refunding).

Refundings

The only spending exception applicable to a refunding issue is the 6-month exception. For purposes of applying the 6-month exception to a refunding, proceeds of the prior issue do not become transferred proceeds of the refunding issue and need not be spent for the refunding issue to meet the 6-month exception. However, those proceeds are subject to rebate as transferred proceeds of the refunding issue, unless the prior proceeds also met an exception to rebate. Regulations § 1.148-7(b)(1).

Extension of Time Period

Section 148(f)(4)(B)(ii) provides that, for governmental bonds (except tax and revenue anticipation notes) and qualified 501(c)(3) bonds, the 6-month time period is extended to one year for an amount of gross proceeds that does not exceed 5 percent of the proceeds.

Prior to enactment of the Taxpayer Relief Act of 1997, this extension applied to the lessor of 5 percent of the proceeds or $100,000.

No De Minimis Exception

There is no de minimis exception (i.e. must spend all gross proceeds within required time period).

18-Month Exception

General Rule

Regulations § 1.148-7(d) provides that an issue meets the rebate requirement if:

- The gross proceeds (as the term is modified for purposes of this exception) of the issue are allocated to expenditures for a governmental purpose of the issue in accordance with the following schedule measured from the issue date:
  - At least 15 percent within 6 months (the 1st spending period)
  - At least 60 percent within 12 months (the 2nd spending period)
  - 100 percent within 18 months (the 3rd spending period);
- The rebate requirement is met for amounts not required to be spent within the 18-month spending period (excluding earnings on a bona fide debt service fund); and
- All the gross proceeds (as the term is modified for purposes of this exception) qualify for the 3-year temporary period with respect to bonds for capital projects. This means that the issue must reasonably expect to meet the expenditure test, the time test, and the due diligence test of the capital projects temporary period.

Continued on next page

Amounts Not Considered Gross Proceeds

For purposes of the 18-month exception, among other amounts, "gross proceeds" does not include:

- Amounts in a bona fide debt service fund;
- Amounts in a reasonably required reserve or replacement fund; or
- Gross proceeds that arise after the 18-month period and that were not reasonably anticipated on the date of issuance (e.g., insurance or lawsuit recoveries). (See Regulations §§ 1.148-7(c)(3) and 1.148-7(d)(3).)

These amounts are subject to the rebate requirement.

Investment Earnings

For the first two spending periods, the amount of investment proceeds included in computing gross proceeds is based on the issuer's reasonable expectations as of the issue date. For the third and final spending period, actual earnings are used to compute gross proceeds.

Reasonable Retainage

The 18-month time period is extended to 30 months (i.e., one additional year) for reasonable retainage. "Reasonable retainage" means an amount not to exceed 5 percent of net sale proceeds that is retained for reasonable business purposes relating to the property financed (e.g., retention to ensure compliance with a construction contract).

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De Minimis Rule

Regulations § 1.148-7(b)(4) provides that a failure to meet the requirements of the last spending period does not cause the issue to fail the spending exception if:

- the unspent proceeds do not exceed the lesser of:
  - 3 percent of the issue price, or
  - $250,000; and
- the issuer exercises due diligence to complete the project

Application to Multipurpose Issues

Under Regulations § 1.148-7(d)(4), the 18-month and 2-year exceptions may not be combined in the same issue. Only one of these exceptions may be used for a single issue. However, either the 18-month or 2-year exception may be combined with the 6-month exception.

No Retroactive Effect

Issuers cannot elect to apply the 18-month exception retroactively. It only applies to bonds issued on or after July 1, 1993.

Two-Year Construction Exception

General Rule

Section 148(f)(4)(C) provides that, in the case of a construction issue, the rebate requirements shall not apply to the available construction proceeds of such issue if the spending requirements are met in accordance with the following schedule:

- 10 percent of the available construction proceeds of the issue are allocated to expenditures for the governmental purposes of the issue within the 6 months beginning on the date the bonds are issued (the 1st spending period);
- 45 percent of such proceeds are allocated for such purposes within the1-year period beginning on such date (the 2nd spending period);
- 75 percent of such proceeds are allocated for such purposes within the18-month period beginning on such date (the 3rd spending period); and
- 100 percent of such proceeds are allocated for such purposes within the 2-year period beginning on such date (the 4th spending period).

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Construction Issue

An issue is a "construction issue" if:

- All of the bonds which are part of such issue are:
  - governmental bonds,
  - qualified 501(c)(3) bonds, or
  - private activity bonds issued to finance property to be owned by a governmental unit or a 501(c)(3) organization; and
- The issuer reasonably expects that at least 75 percent of the available construction proceeds of the construction issue will be used for construction expenditures with respect to property which is to be owned by a governmental unit or a 501(c)(3) organization.

Available Construction Proceeds

Section 148(f)(4)(C)(vi) provides that the term "available construction proceeds" generally means the amount equal to the issue price, plus certain earnings, minus proceeds deposited in a reasonably required reserve or replacement fund and proceeds used to finance issuance costs.

Earnings on the reserve fund are generally included in available construction proceeds until the earlier of the close of the two-year period or the date construction is substantially completed. After that point, earnings on the reserve fund are subject to rebate.

The issuer may, however, elect to exclude earnings on the reserve fund from available construction proceeds altogether. If this election is made, the reserve fund is subject to the rebate requirement from the date of issue.

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Construction Expenditures

Generally, construction expenditures include capital expenditures allocable to real property or constructed personal property, but not expenditures for acquisition of interests in land or other existing real property.

Turnkey contracts can qualify as long as the property has not been built or installed at the time the parties enter into the contract.

Constructed personal property means certain tangible personal property or specially developed computer software.

See Regulations § 1.148-7(g).

Reasonable Retainage

The two-year time period is extended to three years if all that remains as of the fourth spending period is reasonable retainage.

Reasonable retainage means an amount not to exceed five percent of available construction proceeds as of the end of the fourth spending period that is retained for reasonable business purposes relating to the property financed (e.g. retention to ensure compliance with a construction contract). Section 148(f)(4)(C)(iii).

De Minimis Rule

Regulations § 1.148-7(b)(4) provides that a failure to meet the requirements of the last spending period does not cause the issue to fail the spending exception if:

- the unspent proceeds do not exceed the lesser of:
  - 3 percent of the issue price, or
  - $250,000; and
- the issuer exercises due diligence to complete the project

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Two-Year Construction Exception, Continued

Bifurcation

Regulations § 1.148-7(j) provides that for purposes of applying this exception, the issuer may elect to treat the issue as two separate issues, as long as all construction expenditures are allocated to one of the issues (i.e., a construction issue and a non-construction issue) and certain conditions are met.

Penalty in Lieu of Rebate

An issuer of a construction issue may elect on or before the issue date to pay a "penalty in lieu of rebate" under the 2-year exception. (See §148(f)(4)(C)(vii).) The penalty amount is 1.5 percent of the amount by which an issue fails to meet the spending requirement as of any spending period. The penalty payment is in lieu of the obligation to pay the rebate amount on available construction proceeds upon failure to satisfy the spending requirements.

Section 14

Bona Fide Debt Service Fund Exception

Overview

Bona Fide Debt Service Exception

Section 148(f)(4)(A)(ii) provides that investment earnings on a bona fide debt service fund are excluded from rebate in certain cases.

Under Regulations § 1.148-1(b), a bona fide debt service fund is:

- used primarily to achieve a proper matching of revenues with debt service payments within each bond year and
- depleted at least once each bond year except for a reasonable carryover amount not to exceed the greater of (1) the earnings on the fund for the immediately preceding bond year or (2) one-twelfth of the principal and interest payments on the issue for the immediately preceding bond year.

Under § 148(f)(4)(A)(ii), investment earnings on a bona fide debt service fund are exempt from the rebate requirement if the gross earnings on such fund for the bond year are less than $100,000.

The $100,000 earnings limitation may be ignored:

- For issues after July 1, 1993 with average annual debt service that is not in excess of $2,500,000 (Regulations § 1.148-3(k)); and
- For fixed rate governmental issues with an average maturity of at least 5 years (§ 148(f)(4)(A)(ii))

The 1997 Act provides that, in instances where the spending requirements of the two-year spending exception are met with respect to the available construction proceeds of a construction issue, earnings on a bona fide debt service fund will be excluded from rebate.

Section 15

Computing the Amount of Rebate Due

Overview

Introduction

If there are gross proceeds of an issue that do not qualify for an exception, steps five through ten should be taken for purposes of calculating rebate. Step eleven is the actual payment of rebate due. This section discusses these final steps, and includes examples of computing rebate.

Contents

This section contains the following topics:

Computation and Payment Dates

General Rule

If there are gross proceeds of an issue that do not qualify for an exception, steps five through eleven should be taken for purposes of calculating and paying rebate. The general rule for the calculation of rebate set forth in §148(f)(2) and Regulations § 1.148-3 is that an issuer of bonds must pay to the Federal government an amount equal to the amount earned on all nonpurpose investments less the amount that <u>would have been earned</u> if the nonpurpose investments were invested at a rate equal to the yield on the bonds

Step Five – Computation and Payment Dates

According to Regulations §§ 1.148-3(e)(1) and 1.148-3(f), in order to calculate rebate, the computation and payment dates must first be determined. The general rule is that an issuer must compute rebate for successive 5-year intervals from the date of issue.

Computation Date and Period Defined

Computation date means each date on which the rebate amount for an issue is computed under Regulations § 1.148-3(e). Computation period means the period between computation dates. The first computation period begins on the issue date and ends on the first computation date. Each succeeding computation period begins on the date immediately following the computation date and ends on the next computation date. Regulations §1.148-1(b).

Fixed Yield Issue

An issuer of a fixed yield issue may treat any date as a computation date. Regulations § 1.148-3(e)(1).

Variable Yield Issue

For a variable yield issue, an issuer may treat the last day of any bond year ending on or before the latest date on which the first rebate amount is required to be paid as a computation date but may not change that treatment after the first payment date. After the first required payment date, an issuer must consistently treat either the end of each bond year or the end of each fifth bond year as computation dates and may not change these computation dates after the first required payment date. Regulations § 1.148-3(e)(1).

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Computation and Payment Dates, Continued

Final Computation Date

The date that an issue is discharged is generally the final computation date.

For an issue retired within three years of the issue date, the final computation date need not occur before the end of 8 months after the issue date or during the period in which the issuer reasonably expects that any of the spending exceptions will apply to the issue.

Rebate Installment Payment Date

Each rebate payment must be paid no later than 60 days after the computation date to which the payment relates. Regulations § 1.148-3(g).

Computing the Amount of Rebate Due

Step Six – Yield Calculated

Bond yield is then determined. Yield is calculated the same way for rebate purpose as it is for yield restriction purposes. (See Regulations § 1.148-4(a).)

See Section 3 of this lesson for a discussion of calculating the bond yield.

Step Seven – Proceeds Allocated to Nonpurpose Investments

Next, proceeds of the issue must be allocated to nonpurpose investments.

Regulations § 1.148-6(a)(1) provides that an issuer may use any reasonable, consistently applied accounting method to account for gross proceeds, investments, and expenditures.

Amounts are generally allocable to only one issue at a time as gross proceeds. (See Regulations § 1.148-6(b)(1).)

Amounts cease to be allocable to an issue as proceeds only when those amounts:

- are allocated to an expenditure for a governmental purpose;
- are allocated to transferred proceeds of another issue; or
- cease to be allocated to that issue at retirement of the issue or under the universal cap rule of Regulations § 1.148-6(b)(2).

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Step Seven – Proceeds Allocated to Nonpurpose Investments (continued)

Amounts cease to be allocated to an issue as replacement proceeds only when those amounts:

- are allocated to an expenditure for a governmental purpose;
- are no longer used in a manner that causes those amounts to be replacement proceeds of the issue; or
- cease to be allocated to that issue at retirement of the issue or the application of the universal cap rule.

Regulations § 1.148-6(c) provides that, upon purchase or sale of a nonpurpose investment, gross proceeds of an issue are not allocated to a payment for that nonpurpose investment in an amount greater than, or to a receipt from that nonpurpose investment in an amount less than, the fair market value of the nonpurpose investment as of the purchase or sale date.

Step Eight – Cash Flow Schedule Created

Next, a schedule of the cash flows of the nonpurpose investments must be made. The cash flows are shown as either negative (for payments) or positive (for receipts).

Information Sources

Information regarding the payments for and receipts of nonpurpose investments are normally obtained from the issuer or their trustee. Generally, not all the required information will be in the bond transcript, because the bond transcript includes documents as of the issue date and investments are typically made or repaid with investment earnings after such date.

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Payments

For purposes of creating a cash flow schedule, payments are:

- Amounts paid to acquire a nonpurpose investment;
- For a nonpurpose investment that is first allocated to an issue on a date after it is actually acquired or that becomes subject to the rebate requirement on a date after it is actually acquired, the value of the investment on that date;
- For a nonpurpose investment that was allocated to an issue at the end of the preceding computation period, the value of that investment at the beginning of the computation period;
- On the last day of each bond year during which there are amounts allocated to gross proceeds of an issue that are subject to the rebate requirement, and on the final maturity date, a computation credit of$1,000; and
- Yield reduction payments on nonpurpose investments.

The size and number of the computation credits that should be included as payments will depend, in part, on which set of regulations applies. For instance, the 1993 regulations provide for a $1,000 computation credit as described above while the 1992 regulations provide for a computation date credit of $3,000 on each eligible computation date.

In 2007, proposed regulations provided for a cost-of-living adjustment to the computation credit for calendar years after 2007. The proposed regulations were published (REG-106143-07, September 26, 2007) and provide for permissive application of the cost-of-living adjustment for bond years ending on or after September 26, 2007.

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Receipts

For purpose of creating a cash flow schedule, receipts are:

- Amounts actually or constructively received from a nonpurpose investment, such as earnings and return of principal;
- For a nonpurpose investment that ceases to be allocated to an issue before its disposition or redemption date or that ceases to be subject to the rebate requirement on a date earlier than its disposition or redemption date, the value of that nonpurpose investment on that date; and
- For a nonpurpose investment that is held at the end of a computation period, the value of that investment at the end of that period.

Qualified Administrative Costs

Regulations § 1.148-5(e) provides that qualified administrative costs are taken into account in determining payments and receipts on nonpurpose investments. Thus, qualified administrative costs increase the payments for, or decrease the receipts from, the investments. As such, qualified administrative costs decrease the yield on an investment and lower the rebate amount.

Qualified administrative costs are reasonable, direct administrative costs, other than carrying costs, such as separately stated brokerage or selling commissions, but NOT legal and accounting fees, recordkeeping, custody, and similar costs, and general overhead costs.

Step Nine – Payments and Receipts

Next, the cash flow created in the previous step is future valued to the computation date at the bond yield.

Future valuing provides for a mechanism which takes into account the time value of money when comparing amounts paid or received at different times.

Step Ten – Net Payments and Receipts

The future value of the payments and receipts are then netted against each other, and the net amount is the required rebate amount.

Payment of Rebate Due

Step Eleven – Timely Payment

The last step requires the timely payment of rebate.

Section 148(f)(3) requires that rebate be paid at least once every 5 years during the life of the bonds. The regulations, however, provide issuers with the flexibility to make earlier installment payments.

Each rebate payment must be paid no later than 60 days after the computation date to which the payment relates. The last rebate payment is due no later
than 60 days after the last bond is redeemed. Any rebate payment paid within the 60-day period may be treated as paid on the computation date to which it relates.

Except for the final payment, the amount of each required installment payment is at least 90 percent of the rebate amount as of that computation date, taking into account the future value of previous rebate payments.

An issuer is required to file Form 8038-T with its rebate payment.

An issuer that fails to pay rebate when required for a reason other than willful neglect may pay a penalty in lieu of loss of tax-exemption for interest on the bonds.

Penalty for Late Payments

For governmental and 501(c)(3) bonds, the penalty is 50 percent of the rebate amount not paid when required to be paid, plus interest on that amount. For other issues the penalty is 100 percent of the rebate amount, plus interest. Interest is computed at the underpayment rate under § 6621.

The penalty is automatically waived if the rebate amount plus interest is paid within 180 days of discovery of the failure unless:

- the issue is under examination; or
- the failure is due to willful neglect

(See Regulations § 1.148-3(h).)

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Recovery of Rebate Overpayment

Regulations § 1.148-3(i) provides that an issuer may recover an overpayment of rebate. There is an overpayment if the amount previously paid exceeds the sum of the rebate amount of the issue as of the most recent computation date plus any other amounts due (e.g. penalty in lieu of rebate) under § 148 as of the date the claim is made.

<u>General Limitation:</u> An overpayment can only be recovered if the recovery on the date it is first requested would not result in an additional rebate amount if that date were treated as a computation date.

<u>Deadline for the Filing of Claims to Recover Overpayments</u>: Regulations § 1.148-3(i)(3)(i) requires the filing of claims for recovery of overpayments of rebate to be filed no later than the date that is two years after the final computation date with respect to the issue, or two years from July 1, 2008 for an issue of bonds whose final computation date is on or before June 24, 2008.

<u>Additional Limitation:</u> Except for overpayments of penalty in lieu of rebate, an overpayment of less than $5,000 may not be recovered before the final computation date.

No interest is allowed on recoveries of an overpayment amount.

Section 16

Examples of Computing Rebate

Fixed Yield Issue

Example 18

On January 1, 1994, City A issues $49,000,000 of fixed yield bonds and invests all the sale proceeds. The bonds have a yield of 7% per annum (using semiannual compounding) and mature January 1, 2004. City A receives income from the investment of the bond proceeds and spends this income, as well as the sale proceeds themselves, for the governmental purpose of the issue according to the following schedule:

Date	Amount
2/1/94	$ 3,000,000
5/1/94	5,000,000
1/1/95	5,000,000
9/1/95	20,000,000
3/1/96	22,000,000

The total expenditures equals $55,000,000. This represents $49,000,000 of original proceeds plus $6,000,000 of investment proceeds. The significant amount of earnings indicates a high yield on the investment of the sale proceeds. The absence or presence of arbitrage profits is determined by the rebate calculation.

City A selects a bond year ending on January 1, so the first required computation date is 5 years from the issue date, on January 1, 1999. The rebate amount as of this date is computed by determining the future value of the receipts and the payments for the investments, using the same compounding interval used to compute the yield on the bond issue. The future value of these amounts, plus computation credits, as of January 1, 1999, is shown on the table on the following page.

Continued on next page

Example 18
(continued)

Date	Receipts (Payments)	FV (7%)
1/1/94	($49,000,000)	($69,119,339)[a]
2/1/94	3,000,000	4,207,602[b]
5/1/94	5,000,000	6,893,079
1/1/95	5,000,000	6,584,045
1/1/95	(1,000)	(1,317)[c]
9/1/95	20,000,000	25,155,464
1/1/96	(1,000)	(1,229)[c]
3/1/96	22,000,000	26,735,275
1/1/97	(1,000)	(1,148)[c]
Rebate amount (1/1/99)		$ 452,432

[a] This is the same as the amount that would be received on 1/1/99 if the proceeds from the sale of the bonds were invested at 7% per annum (the yield on the bonds) from 1/1/94 to 1/1/99.

[b] This amount (and the four following amounts) is what would be received if investment receipts (which are composed of both repayments of principal and interest from the investments) were invested at 7% per annum (the yield on the issue), compounded semiannually, from the date received through the date of the rebate calculation.

[c] Computation credit.

The amount of $69,119,339 is the future value of the $49,000,000 invested, assuming a yield on the investments equal to the yield on the bonds. The rebate determination involves measuring whether that amount, plus the future value of the computation credits, is greater than or less than the future value of receipts. If it is less, rebate is owed. Here, $69,119,339 plus $3,694 (the future value of the computation credits) equals $69,123,033. The aggregate future value of the receipts is $69,575,465. $69,575,465 minus $69,123,033 equals the rebate amount of $452,432.

City A files Form 8038-T and pays 90 percent of the rebate amount ($407,189) to the United States within 60 days of January 1, 1999.

Continued on next page

Example 18
(continued)

On January 1, 2004, City A redeems all the bonds, and thus this date is the final computation date. The future value of the receipts and payments as of this date is:

Date	Receipts (Payments)	FV (7%)
1/1/99	$452,432	$ 638,200
1/1/04	(1,000)	(1,000)
Rebate Amount (1/1/04)		$ 637,200

As of this computation date, the future value of the payment made on January1, 1999, is $574,380 and thus an additional rebate payment of $62,820 is due. This payment reflects the future value of the 10 percent unpaid portion, and thus would not be owed had the issuer paid the full rebate amount as of any prior computation date.

Variable Yield Issue

Example 19

On July 1, 1994, City B issues $30,000,000 of variable yield bonds and invests all of the sale proceeds. As of July 1, 1999, there are nonpurpose investments allocated to the issue. Prior to July 1, 1999, City B receives amounts from nonpurpose investments and immediately expends them for the governmental purpose of the issue as follows:

Date	Amount
08/01/94	$ 5,000,000
07/01/95	8,000,000
12/01/95	17,000,000
07/01/99	650,000

City B treats the last day of the fifth bond year (July 1, 1999) as a computation date. The yield on the variable yield issue during the first computation period is 6% per annum (using semiannual compounding). The value of the nonpurpose investments allocated to the issue as of July 1, 1999, is $3,000,000. The rebate amount as of July 1, 1999, is computed by determining the future value of the receipts and the payments for the nonpurpose investments, using the same conventions used to compute the yield on the bond issue. The future value of these amounts and of the computation date credits as of July 1, 1999, is:

Date	Receipts (Payments)	FV (6%)
07/01/94	($30,000,000)	($40,317,491)
08/01/94	5,000,000	6,686,560
07/01/95	(1,000)*	(1,267)
07/01/95	8,000,000	10,134,161
12/01/95	17,000,000	21,011,112
07/01/96	(1,000)*	(1,194)
07/01/97	(1,000)*	(1,126)
07/01/98	(1,000)*	(1,061)
07/01/99	650,000	650,000
07/01/99	3,000,000	3,000,000
07/01/99	(1,000)*	(1,000)

Rebate amount (7/01/1999) $1,158,694

*Payments include computation credits of $1,000. (See Regulations § 1.148-3(d)(1)((iv)).

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Example 19 (continued)

The future value of the initial $30,000,000 payment to acquire nonpurpose investments is $40,317,491. $40,317,491 plus $5,648 (the future value of the computation credits) equals $40,323,139. The aggregate future value of the receipts is $41,481,833. This amount includes the value of the nonpurpose investments held at the end of
the computation period ($3,000,000). $41,481,833 minus $40,323,139 equals the required rebate amount of $1,158,694.

City B pays 90 percent of the rebate amount ($1,042,825) to the United States within 60 days of July 1, 1999.

On July 1, 2004, City B redeems all of the bonds. Thus, the next computation date is July 1, 2004. On July 30, 1999, City B chose to compute rebate for periods following the first computation period by treating the end of each fifth bond year as a computation date. The yield during the second computation period is 5% per annum (using semiannual compounding). The computation of the rebate amount as of this date reflects the value of the nonpurpose investments allocated to the issue at the end of the prior computation period. On July 1, 2004, City B sells those nonpurpose investments for $3,925,000 and expends that amount for the governmental purpose of the issue.

As of July 1, 2004, the future value of the rebate amount computed as of July 1, 1999, and of all other payments and receipts is:

Date	Receipts (Payments)	FV (5%)
07/01/99	$1,158,694	$1,483,226
07/01/99	(3,000,000)	(3,840,254)
07/01/00	(1,000)	(1,218)
07/01/01	(1,000)	(1,160)
07/01/02	(1,000)	(1,104)
07/01/03	(1,000)	(1,051)
07/01/04	(2,000)*	(2,000)
07/01/04	3,925,000	3,925,000

Rebate Amount (07/1/2004) $1,561,439

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Example 19 (continued)	As of the July 1, 2004, the final computation date, the future value of the payment made on July 1, 1999, is $1,334,904 and thus an additional rebate payment of $226,535 is due. * This payment includes computation credits of $1,000 for amounts allocated to gross proceeds of an issue subject to rebate and $1,000 for the final maturity. (See Regulations § 1.148-3(d)(1)(iv).)

Section 17

Yield Burning

Fair Market Value

Regulations §1.148-6(c)

Gross proceeds of an issue cannot be allocated to a payment for a nonpurpose investment in an amount greater than, or to a receipt from that nonpurpose investment in an amount less than, the fair market value of that nonpurpose investment. (See Regulations § 1.148-6(c).)

Yield burning is a concern in the arbitrage area. Issuers may lack incentive to invest at the highest possible yield if investment profits above the bond yield need to be paid over to the United States. Purchasing an investment for more than it is worth can be a way of transferring rebatable arbitrage profit to someone else.

This area should be looked at closely on examination to determine if fair market value was paid for investments.

The determination of the fair market value of investments is discussed in greater depth in TEB Basic Training Phase II and Phase III.

Summary

Review of Lesson 5 Regarding Arbitrage

Section 103(b)(2) provides that interest on a bond is not excludable from income for federal tax purposes if the bond is an arbitrage bond.

Section 148(a) provides that an arbitrage bond is any bond issued as part of an issue any portion of the proceeds of which are reasonably expected (at the time of the issuance of the bond) to be used directly or indirectly to acquire higher yielding investments or to replace funds which were used to acquire higher yielding investments.

Additionally, a bond is an arbitrage bond if the issuer intentionally uses any portion of the proceeds of the bonds as described above.

For purposes of § 148(a), "proceeds" generally include sale proceeds, investment proceeds, transferred proceeds, and replacement proceeds. In addition, according to Regulations § 1.141-12(a)(4) disposition proceeds must be treated as gross proceeds for purposes of § 148(a).

Yield on a bond issue is the economic return to the bondholders. A bond can have a fixed or a variable yield.

Yield on a fixed yield issue is the discount rate that results in the aggregate present value, as of the issue date, of all unconditionally payable payments over the life of the issue equaling the present value of the issue price as of that date.

Yield on a variable yield issue is computed separately for each computation period. The yield for each computation period is the discount rate at which the present value, as of the first day of the computation period, of all payments of principal and interest and qualified guarantees paid on the bond issue during that computation period, equals the present value of the issue price, as of the first day of the computation period.

Continued on next page

Summary, Continued

Review of Lesson 5 Regarding Arbitrage (continued)

Yield on investments is calculated in the same manner as the yield on the bonds. The yield on the investments is determined separately on each class of investments.

If the investment property acquired with the proceeds of the bond issue produces a yield which is "materially higher" than the yield on the issue, then the proceeds of the issue are used to acquire higher yielding investments. The definition of "materially higher" differs depending on the type of investment.

Section 148(c) and the accompanying regulations provide temporary periods during which the bond proceeds may be invested without yield restriction. The length of the temporary period generally depends upon the purpose for which the bonds are issued.

Although the arbitrage rules permit some proceeds to be invested without yield restriction, the issuer is generally not permitted to retain such arbitrage earnings. In some cases, the issuer can retain the arbitrage earnings, while in others the earnings must be rebated to the United States.

Review of Lesson 5 Regarding Rebate

Even if arbitrage can be earned under the yield restriction rules, it may be subject to rebate to the United States.

Although some of the rebate rules are similar to the yield restriction rules, the requirement to rebate arbitrage is separate from the requirement to restrict yield.

The rebate rules concentrate on actual cash flows rather than expected cash flows.

Before computing rebate, it must be determined whether any gross proceeds of the issue are excepted under any of the exceptions.

Rebate is computed using the future value method under the regulations.