Module C

Yield and Valuation of Investments

Overview

Introduction

The yield on invested bond proceeds is needed to determine if there are any arbitrage earnings. This module discusses how to calculate the yield on a class of investments. Also, this module discusses the valuation of investments. For allocation of proceeds to investments see Module D of Phase II of this course and Treas. Reg. section 1.148-6.

Objectives

At the end of this module, the student will be able to:

- Classify investments according the rules of Treas. Reg. section 1.148-5(b)(2)(ii).
- Compute the yield on each class of investments allocated to an issue.
- Define yield reduction payments and explain when they can and cannot be used.
- Value investments as described by Treas. Reg. section 148-5(d).
- Identify qualified administrative costs and determine whether or not they are taken into account when computing the yield of the investments.
- Apply various auditing techniques, such as:
    - obtaining records,
    - reconstructing accounts, AND
    - interpreting investment data.

In this Module

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Section 1

Introduction

Overview

Introduction

This section discusses the statutes and regulations used in calculating the yield on investments.

In this Section

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Statutory Provisions

General Rule

Generally, IRC section 148 and the most recent regulations thereunder provide guidance on the:

- calculation of yield on investments,
- use of yield reduction payments, and
- valuation of investments.

Statutes

Prior to the Tax Reform Act (1986), IRC section 103 of the 1954 Code contained the arbitrage rules. After the Tax Reform Act, the arbitrage and rebate rules are in IRC section 148. Note that some of the older still applicable regulations for bonds and arbitrage are found in section 1.103 of the Income Tax Regulations if they have not been superceded or revoked by IRC section 148 or other Treas. Regs. under sections 1.141 through 1.150.

Section 148

(a) Arbitrage bond defined. – For purposes of section 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 issuance of the bond) to be used directly or indirectly –

(1) to acquire higher yielding investments, or
(2) to replace funds which were used directly or indirectly to acquire higher yielding investments.

For purposes of this subsection, a bond shall be 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 a manner described in paragraphs (1) or (2).

(b) Higher Yielding Investments. – For purposes of this section –

(1) In General. The term "higher yielding investments" means any investment property which produces a yield over the term of the issue which is materially higher than the yield of the issue.

The four underlined portions of the statutory provisions are the focus of this Module.

Treasury Regulations

General Rule

Since 1979 the Service has issued 12 sets of regulations, amendments, and proposed regulations relating to arbitrage. Many of these regulations affect the computation of yield on investments.

Subject to the specific provisions of the individual sets of regulations, the regulations are generally applied as set forth in Module F of Phase II of this course. Note that there may be technical corrections to some of the 12 sets of regulations. The citations for these small corrections are also found in Module F of this course.

Current Regulations

The current Treas. Reg. section 1.148-5, originally published in November 1992, 1992-2 C.B. 688, was effective for bonds issued after June 30, 1993. These Temporary Regulations were amended on June 14, 1993 by T.D. 8476, 1993-2 C.B. 13. On May 9, 1997, in T.D. 8718, 1997-1 C.B. 47, these regulations were finalized. These regulations provide guidance on yield calculation, the use of yield reduction payments and the valuation of investments.

The current regulations apply to bonds sold on or after July 8, 1997. An issuer of bonds sold before that date may elect to apply these regulations in whole, but not in part, to issues issued before July 8, 1997.

Prior Regulations

Since current printed material containing regulations does not necessarily (depending on the publisher) contain the prior regulations, references for any particular set of regulations should be made to the original Treasury Decision (T.D.), as published in the Federal Register or the Internal Revenue Cumulative Bulletin. A list of these is found in the overview portion of Module F.

1993 Regulations

Generally, the original 1993 regulations apply to issues issued after July 1, 1993. These provisions are now found in Treas. Reg. section 1.148-5A of the current regulations and may apply to bonds issued prior to July 8, 1997.

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1992 Regulations

Treas. Reg. section 1.148-2, published on May 18, 1992, dealt with the computation of rebatable arbitrage. Generally, Treas. Reg. section 1.148-2 applied to all bonds to which IRC section 148(f) applies. **(See Treas. Reg. section 1.148-0(b)(2).)**

Temporary Regulations

Temporary Treas. Reg. section 1.103-15AT was published on January 7, 1985 and withdrawn on June 14, 1993.

Section 2

Introduction to Yield Computation of Investments

Overview

Introduction

The yield on investments represents the rate of return on the investments.

The yield on an investment is needed to determine if an investment is properly yield restricted.

In this Section

This section contains the following topics:

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Basic Yield Computation Exercise	C-8
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Basic Yield Computation Terms and Definitions

General Rule: Method, Interval and Conventions	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. Computing yield on the issue was the subject of Module M in Phase I.
Definition of Yield	Treas. Reg. section 1.148-5(b)(1) provides that the yield on an investment allocated to an issue is the discount rate that, when used in computing the present value as 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.
Definition of Payments	Treas. Reg. section 1.148-5(b)(1) provides that payments means amounts to be actually or constructively paid to acquire the investment.
Definition of Receipts	Treas. Reg. section 1.148-5(b)(1) provides that receipts means amounts to be actually or constructively received from the investment, such as earnings and return of principal.

Basic Yield Computation Exercise

Facts	Assume Here
1. Date of investment	March 1, 199x
2. Proceeds amount used investment	$1,000,000
3. The nominal investment rate	7%
4. The anticipated receipt dates	March 1 and September 1
5. The term	2 years

Step	Action	Date
[a]	$1,000,000 of proceeds used to buy an investment	3/1/199x
[b-1]	$35,000 (1/2 of 7% of $1,000,000)	9/1/199x
[b-2]	$35,000	3/1/199x+1
[b-3]	$35,000	9/1/199x+1
[b-4]	$1,035,000	3/1/199x+2

Computing the Yield

We can compute the yield on the investment.

It is important to understand the concept of what's going on: The present value of [a], "as of the date the investment is allocated to the issue" which is $1,000,000. This amount is to equal the present value of the <u>sum</u> of the [b]'s. We know the future values for each ["b"] i.e. 7% of $1,000,000 semi-annually. We could do this with dollar amounts, i.e. the $35,000 each receipt date. The standard present value formula is

$$FV = PV(1 + i)^n \quad \text{or} \quad PV = \frac{FV}{(1 + i)^n}$$

There will be 4 parts on the left side of this equation.

where **FV** is the **future value**, (which is known for each 'b"), and **PV** is the **present value,** (which is known for the amount allocated to the investment). The "n" is the number of intervals. Here "n" is known for each of the four separate computation dates. The calculation solves for "**i**". This is yield on the investment!

Continued on next page

Basic Yield Computation Exercise, continued

Computing the Yield, continued

If done by hand (using interpolation), one would continually substitute figures for (i) until, when, computed to four decimal places, one approaches a balanced equation. The "i" would be the yield figure. Generally one computes present value using a calculator, but understanding the underlying concepts and formula is important if we are going to adjust some of the terms of the formula.

Special Rules

Variable Rate Instruments

Treas. Reg. section 1.148-5(b)(1) provides that the yield on a variable rate instrument is determined in a manner comparable to the determination of the yield on a variable issue. **(See Treas. Reg. section 1.148-4(c) for computation of yield on a variable yield issue.)**

1. Yield is computed separately for each computation period,

2. Special consideration must be given in computing yield separately for each computation period, similar to that described in the regulation, and

3. Payments on bonds include:

   (a) amounts that are actually paid during the computation period for principal on the bond, and

   (b) amounts paid during the current period both for interest accruing during the current period and for interest accruing for the prior period that was included in the deemed issue price of the bonds as accrued unpaid interest at the start of the current period.

Mortgage Revenue and Qualified Student Loan Bonds

Treas. Reg. section 1.148-5(b)(1) also provides that for an issue of qualified mortgage bonds, qualified veterans' mortgage bonds, or qualified student loan bonds on which the interest is paid semiannually, all regular monthly loan payments may be treated as received at the end of that period.

Payments Made by the Conduit Borrower

Treas. Reg. section 1.148-5(b)(1) provides that for any conduit loan, payments made by the conduit borrower are not treated as paid until the conduit borrower ceases to receive the benefit of earnings on those amounts.

Section 3

Investments

Overview

Introduction

This section discusses the definitions of investment and related terms. An issuer may have many different investments, and the regulations separate these investments into different classes.

In this Section

This section contains the following topics:

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Introduction to Investments

Definition of Investment

According to Treas. Reg. section. 1.148-1(b), investment means any investment property as defined in IRC sections 148(b)(2) and 148(b)(3), and any other tax-exempt bond.

Types of Investment Property

IRC section 148(b)(2) provides that the term "investment property" means:

- any security - **(See IRC section 165(g)(2)(A) and (B).)**
  - IRC section 165(g)(2)(A) = a share of stock in a corporation,
  - IRC section 165(g)(2)(B) = a right to subscribe for, or to receive, a share of stock in a corporation.
- any obligation - **(See Treas. Reg. section 1.150-1(b).),** This is broader than the "certificates of indebtedness" described in IRC section 165(g)(2)(C) because obligations are investments described under bond provisions.
- any annuity contract - **See Treas. Reg. section 1.148-1(b)**, which defines this as meaning an annuity contract as defined in **IRC section 72**.
- any investment-type property - Treas. Reg. section 1.148-1(b) includes all securities listed in paragraph (e) of Treas. Reg. 1.148-1: property (other than that described above or below) that is held principally as a passive vehicle for the production of income. (This includes any benefits based on the time value of money, including from making a prepayment.) Treas. Reg. section 1.148-1(e) divides prepayments into two categories:

  1. A prepayment <u>is</u> investment-type property where <u>a</u> principal purpose is to receive an investment-type return from the time payment is made until the time payment would otherwise be made.

  2. A prepayment is NOT investment-type property if it is made for:

     - A substantial business purpose other than investment return and the issuer has no economically reasonable alternative to making the prepayment, OR

     - The prepayment is on substantially the same terms as are made by a substantial percentage of persons similarly situated to the issuer, which are not beneficiaries of tax-exempt financing.

Recent decisions in the <u>City of Columbus v. C.I.R</u>. may be reviewed for a discussion of this area. See 106 T.C. 325 (May 14, 1996), 72 T.C.M. (CCH) 260 (July 30, 1996), 112 F. 3rd 1201 (May 13, 1997) and 75 T.C.M. (CCH) 2127 (April 6, 1998). See Exhibit C-4.

Continued on next page

Types of Investment Property, continued

- Certain hedges are also investment-type property. This includes the investment element of a contract that is a hedge within the meaning of Treas. Reg. section 1.148-2(h)(2)(i)(A) and that contains a significant investment element because a payment by the issuer relates to a conditional or unconditional obligation by the hedge provider to make a payment at a later date. (See section 5 of Module B, Phase II.)

- In some cases, (e.g. a bond other than a private activity bond) investment property includes residential rental property for family units which are not located within the jurisdiction of the issuer and which are not acquired to implement a court ordered or approved housing desegregation plan. (See IRC section 148(b)(2)(E).)

Most Tax Exempt Bonds are Not Investment Property

IRC section 148(b)(3) and Treas. Reg. section 1.148-2(d)(2)(v) do NOT treat investments in tax-exempt bonds of another issue as investment property **except**:

- If the interest on the bonds is subject to the Alternative Minimum Tax, (IRC section 57(a)(5)(c)). This provision specifies what is an AMT bond, including that it is issued after August 7, 1986. However, the effective date of section 148(b)(3) applies only to obligations issued after March 31, 1988 (TAMRA – 1988); so not all AMT bonds are affected.

- Also 501(c)(3) bonds are generally not private activity bonds for purposes of the AMT.

What Is Not Investment Property

Bond proceeds used for:

- buildings and equipment, i.e. spent proceeds for bricks, concrete and mortar,
- buying and paying for the real purpose of issuing the bonds,
- salaries and administrative costs, and
- fees incurred in issuing the bonds

are not investment property.

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Purpose Investment

Treas. Reg. section 1.148-1(b) provides that a purpose investment means an investment that is acquired to carry out the governmental purpose of an issue.

Nonpurpose Investment

Treas. Reg. section 1.148-1(b) provides that a nonpurpose investment means any investment property, as defined in section 148(b), that is not a purpose investment.

- A **financing lease** may be treated as a nonpurpose investment. In PLR 9144001 a Subchapter S corporation constructed an airplane hangar that was then leased to a 501(c)(3) organization. The IRS concluded that the "lease" should be treated as a conditional sale agreement and that it should be treated as a nonpurpose obligation.

Program Investment

Treas. Reg. section 1.148-1(b) provides that a program investment is a purpose investment which is part of a governmental program and generally includes student loan bonds, qualified mortgage bonds and qualified veterans' mortgage bonds.

Guaranteed Investment Contracts

Treas. Reg. section 1.148-1(b) provides that a guaranteed investment contract ("GIC") includes any nonpurpose investment that has a specifically negotiated withdrawal or reinvestment provisions and a specifically negotiated interest rate, and also includes any agreement to supply investments on two or more future dates (e.g. a forward supply contract).

Investment Proceeds

Treas. Reg. section 1.148-1(b) provides that investment proceeds means any amounts actually or constructively received from investing proceeds of an issue.

Classes of Investments

Introduction

An issuer may have many different investments. The regulations specify separate classes of investments and how these classes are treated.

General Rule

Treas. Reg. section 1.148-5(b)(2)(i) provides that the investment yield must be calculated for each class of investments.

Blended Yield

Treas. Reg. section 1.148-5(b)(2)(i) provides that in determining the yield on a separate class of investments, the yield on each individual investment within the class is blended with the yield of the other individual investments within the class, whether or not held concurrently, by treating those investments as a single investment.

Different Classes

Treas. Reg. section 1.148-5(b)(2)(i) provides that the yields on different classes of investments are not blended.

Separate Classes

Treas. Reg. section 1.148-5(b)(2)(ii) provides that each of the following is a separate class:

(A) Each category of yield restricted purpose investment and program investment that is subject to a different definition of materially higher under section 1.148-2(d)(2) is a separate class:

- Student loans (materially higher is 2%, [0.02] – see Treas. Reg. 1.148-2(d)(2)(iv)).
- Program investments which are other than student loans (materially higher is 1 ½ points, [0.015] – see Treas. Reg. 1.148-2(d)(2)(iii)).

(B) Yield-restricted nonpurpose investments,

- refunding escrows and replacement proceeds (materially higher is one-thousandth of one percentage point [0.00001] – see Treas. Reg. 1.148-2(d)(ii)).

(C) All other nonpurpose investments. Materially higher is one-eighth of one percentage point [0.00125].

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Special Rules for Classes of Investments

Special Rules for Certain Sinking Funds

Treas. Reg. section 1.148-5(b)(2)(iii) provides that if the issuer reasonably expects as of the issue date to establish and maintain a sinking fund solely to reduce the yield on the investments in a refunding escrow, then the issuer may treat all of the yield restricted nonpurpose investments in the refunding escrow and that sinking fund as a single investment having a single yield.

The issuer may not treat nonpurpose investments in a reasonably required reserve fund, a type of sinking fund, and a refunding escrow as a single investment having a single yield.

Mandatory Blending: Refunding Escrows

Treas. Reg. section 1.148-5(b)(2)(iv) provides that in computing the yield on yield restricted investments allocable to proceeds of a refunding issue that are held in one or more refunding escrows, the individual investments are treated as having a single yield, whether or not held concurrently.

<u>Example in this Regulation</u>
Under the mandatory blending rule a single investment includes both the individual investments allocable to the sale and investment proceeds of a refunding issue that are held in one refunding escrow for a prior issue and the investments allocable to transferred proceeds of that refunding issue that are held in another refunding escrow.

Definition of Proceeds

Treas. Reg. section 1.148-1(b) provides that:

- Proceeds includes sale proceeds, investment proceeds and transferred proceeds.
- Proceeds do not include, however, amounts actually or constructively received with respect to a purpose investment that are properly allocable to the immaterially higher yield under Treas. Reg. section 1.148-2(d) or IRC section 143(g) or to qualified administrative costs recoverable under Treas. Reg. section 1.148-5(e).

Computing Yield on an Investment - An Example

Investments Held Beyond Redemption Date

Treas. Reg. section 1.148-5(b)(3) provides that for investments held beyond the reasonably expected redemption date of the issue, those investments are treated as sold for an amount equal to their value on that date.

For investments held beyond an applicable temporary period under Treas. Reg. section 1.148-2, for purposes of Treas. Reg. section 1.148-2, those investments may be treated as purchased for an amount equal to their fair market value as of the end of the temporary period.

Consistency Redemption Assumptions on Purpose Investments

Treas. Reg. 1.148-5(b)(4) provides that yield on purpose investments allocable to an issue is computed using the same redemption assumptions used to compute the yield on the issue.

Special Rule for Mortgage Bonds

Yield on purpose investments allocable to an issue of qualified mortgage bonds and qualified veterans' mortgage bonds must be determined in a manner that is consistent with, and using the assumptions required by IRC section 143(g)(2)(B).

- Subparagraph (A) provides the effective rate of interest on the mortgages cannot exceed the yield on the bonds by more than 1.125 percentage points
- Subparagraph (B) provides rules for the effective rate of interest on the mortgage investments. This includes what fees, charges, etc. are borne by the mortgagor and what fees etc. are NOT borne by the mortgagor and other assumptions.
- Subparagraph (C) provides rules for determining yield on the mortgage bond issues.
- Paragraph (3) of section 143(g) provides special rules on Arbitrage and Investment gain to be used to reduce costs of owner financing.

Computing Yield on an Investment - An Example, continued

How to Calculate the Yield on Investments

To calculate the yield on investments, the following five steps need to be completed.

Step	Action
1	Identify the purpose and nonpurpose investments.
2	Separate investments into classes.
3	Construct a table of receipts and payments for each class of investments and calculate day count.
4	Present value all receipts.
5	To calculate yield, determine the discount rate which equates the present value payments to present value receipts.

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Computing Yield on an Investment - An Example, continued

Introduction

Exercise on Separating Investments into Classes

This exercise combines many types of situations, which would normally NEVER occur in the same single bond issue. However, the exercise allows for consideration of many elements of the rules regarding investments and separating them into classes. You should know the temporary period rules from Module M of Phase I beforehand.

Facts

State S issued a $100,000,000 6% bond on April 1, 1996, maturing in 12 years. Interest is payable to bondholders each October 1 and April 1.

Amount	Explanation
$1,200,000	Paid to underwriters for issuance costs
$20,000,000	Used to set up a student loan program. Initially the money is used to buy a regulated investment company's growth-income fund, while loan applications are processing
$19,000,000	Used to set up the qualified mortgage loan program, 8 banks will make the mortgage loans.
$11,000,000	Used to Advance Refund (on September 1, 1999) an outstanding G.O. bond
$700,000	Paid to bond counsel
$10,000,000	Used to create a reasonably-required reserve and replacement fund
$25,000,000	Placed in a dormitory construction fund to be used over the next three years
$100,000	Used to pay printing, publishing and other issuance costs
$13,000,000	Placed in a 5 year construction fund to be used for hydroelectric connection between State's state-owned generating plant and the regional electric grid, placed as follows: $8,000,000 invested in commercial bonds 2,000,000 invested in G.O. Bonds of State T 3,000,000 invested in new private activity bonds, half of which are 501(c)(3) hospital bonds

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Computing Yield on an Investment – Example, continued

Assumptions

Before solving the questions below, make sure you consider things logically:

A. Are the proceeds placed into investments?

B. If the proceeds are placed into investments, is there an applicable temporary period during which there may be no yield restriction?

C. If there are no applicable temporary periods, is there a special definition allowing for a different "materially higher yield" for that investment?

D. If there is an applicable temporary period, and it will expire, what happens?

Issues

Based only on the information on Page C-17

1. Identify what are the investments
2. Separate the investments into classes
3. How many classes are there? Should any be combined?
4. What set of Regulations is applicable?
5. What if $11,265,000 is placed in the 4-R fund?
   Explain the applicability of these rules:
   a. If any amount over 10% of the sales proceeds, the fund fails to meet the 4-R fund limit
   b. It is not subject to yield restriction but is subject to rebate
6. Can you determine yield on the bonds from the information presented?
7. Can you determine yield on the investments?

Section 4

Yield Reduction Payments

Overview

Introduction

This section discusses when yield reduction payments may be used to reduce the yield on certain investments.

General Rule

An issuer can make yield reduction payments to reduce the yield on certain investments.

In This Section

This section contains the following topics:

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Yield Reduction Payments for Advance Refunding Issues	C-27

Manner of Payment

Date of Payment

Treas. Reg. section 1.148-5(c)(2)(i) provides that yield reduction payments on nonpurpose investments and program investments must be paid to the United States at the same time and in the same manner as rebate payments.

However, yield reduction payments need to be made on or before the date of the required rebate installment payment for the yield reduction payment to be included in the rebate calculation.

Full Payment Required

Unlike a rebate payment, there is no specific rule which allows only 90 percent of the payment amount to be paid.

Treatment as Payments

Treas. Reg. section 1.148-3(d)(v) provides that yield reduction payments on nonpurpose investments are treated as payments for purposes of rebate calculations.

Special Rule for Purpose Investments

For purpose investments allocable to an issue:

- No yield reduction payments need be made until the earlier of:
    - the tenth bond year after the issue date; or
    - 60 days after the issue is no longer outstanding.
- For payments made prior to the issue's retirement, only 75 percent of the amount need be paid. **(See Treas. Reg. section 1.148-5(c)(2)(ii))**
- Yield reduction payments are appropriate for purpose investments because purpose investments may be yield restricted.

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Recovery of Overpayment

Pursuant to Treas. Reg. section 1.148-3(i), an issuer may recover an overpayment of a yield reduction payment, except that:

- recovery of an overpayment is not allowed if, on the date requested, it would result in an additional amount owed (if that date were treated as the computation date).

- an overpayment amount less than $5,000 may not be recovered until the final computation date.

Eligible Investments

Introduction

An issuer may only make yield reduction payments for the following types of investments pursuant to Treas. Reg. section 1.148-5(c)(3):

- Nonpurpose investments allocable to proceeds that qualified for an initial temporary period. Initial temporary periods include capital projects, restricted working capital expenditures, pooled financings and or certain investment proceeds.
- Purpose or nonpurpose investments allocable to an issue in which at least five percent of the value of the bonds are variable yield bonds, unless the issue is an issue of hedge bonds.
- Nonpurpose investments allocable to transferred proceeds of a current refunding issue.
- Nonpurpose investments allocable to transferred proceeds of an advance refunding issue if investment of sale proceeds or replacement proceeds in zero-yielding nonpurpose investments (commonly called "SLuGs") is insufficient to comply with yield restrictions.
- Federally guaranteed student loans under IRC section 144(b)(1)(A).
- Nonpurpose investments allocable to gross proceeds of an issue in a reasonably required reserve or replacement (4-R) fund in a fund that, except for its failure to satisfy the three-part size limitations of Treas. Reg. section 1.148-2(f)(2)(ii) (i.e. the least of 10 percent of the principal amount of the issue, maximum annual debt service; and 125 percent of average annual debt service), would qualify as a 4-R (reasonably required reserve or replacement fund). This provision, allowing yield reduction payments, is limited to either:
    1. the value of the nonpurpose investments in the fund are not greater than 15 percent of the stated principal amount of the issue, or
    2. the amounts in the fund are not reasonably expected to be used to pay debt service on the issue other than in connection with reductions in the amount required to be in that fund; e.g. a reserve fund for a revolving fund loan program.
- Nonpurpose investments allocable to replacement proceeds of a refunded issue as a result of the universal cap.
- Certain reserve or replacement funds required by the pre-1978 legislation described in Treas. Reg. section 1.148-11(f).

Rebate Payments

Rebate payments are an example of yield reduction payments.

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Eligible Investments, continued

Example

On January 2, 1998, City issues fixed rate Bonds to construct a new hospital building. City elects under IRC section 148(f)(4)(C) to treat Bonds as a construction issue. City does not elect to pay penalty in lieu of rebate. Also, City sets up a 4-R fund equal to 10% of the proceeds of Bonds and elects to exempt the earnings on the 4-R fund from ACP.

> [**NOTE: "ACP" means the Available Construction Proceeds**. It is defined in Code section 148(f)(4)(C)(vi), and generally applies for capital construction projects. Technically ACP = issue price plus earnings on both the investment proceeds and a 4-R fund <u>not funded</u> by the issue, reduced by issuance costs and the 4-R fund]

Further, assume that Bonds qualify for a three-year temporary period under section 1.148-2(e)(2).

Accordingly, City may invest the construction issue proceeds without regard to yield restriction for three years and is exempt from rebate for two years if it complies with the two year spending schedule of IRC section 148(f)(4)(C)(ii). Also, City may invest the 4R fund without regard to yield restriction, but must rebate any arbitrage earnings from the date of issue.

City inadvertently fails to spend all of the ACP by the two year (fourth) spending period. Also, City earns negative arbitrage on the unspent ACP during the three-year temporary period.

City fails to yield restrict the unspent ACP following the three year temporary period. Because of a change in market conditions, City earns positive arbitrage during Years 2001 and 2002 (Years 4 and 5) on its unspent ACP. City expends all ACP on the project by January 2, 2003.

January 2, 2003 is the first rebate computation date. Under Treas. Reg. section 1.148-5(b)(2)(ii), the nonpurpose investments held in the 4R fund and those allocated to the construction issue for the three-year temporary period are treated as a single investment class. The yield must be separately calculated for this class of investments.

Also, under Treas. Reg. section 1.148-5(b)(3), on January 2, 2001, the investments allocable to the construction issue are treated as being sold for an amount equal to their fair market value and reinvested in a separate class of nonpurpose investments. The yield must be separately calculated for this class in order to test the yield reduction rules.

Assume that, because of the large amount of negative arbitrage earned during the three-year temporary period, no net rebate is due on January 2, 2003.

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Example, continued

Yet, because City failed to yield restrict the investments allocable to the construction issue after the end of the temporary period, City must make a yield reduction payment in the amount of the positive arbitrage earned during Years 4 and 5. No offset is allowed for the negative arbitrage earned during the three-year temporary period because the investment during that 3-year period is treated as a separate class of investments.

Yield Reduction Payments for Advance Refunding Issues

Introduction

This section discusses when yield reduction payments may be used for advance refunding issues.

General Rule

Generally, yield reduction payments are not allowed to reduce yield on advance refunding issues. (See Treas. Reg. section 1.148-5(c)(3)(ii).)

Exceptions

Yield reduction payments may only be used for advance refunding issues in the following limited circumstances:

- Transferred proceeds allocable to nonpurpose investments,
- Nonpurpose investments allocable to replacement proceeds of a refunded issue as a result of the universal cap, AND
- Transferred proceeds allocable to a 4R fund, but only to the extent necessary to satisfy yield restriction under IRC section 148(a) on those proceeds treating all investments allocable to those proceeds as a separate class.

Example
City issues floating rate refunding bonds to advance refund a prior fixed rate issue. City might want to use the proceeds of the refunding issue to create a fixed rate refunding escrow to defease the prior issue, while using the revenues of the escrow to make yield reduction payments based on the difference between the fixed and floating rates. The regulations prohibit use of yield reduction payments in this manner.

Section 5

Valuation of Investments

Overview

Introduction

This section discusses general rules applicable to the valuation of investments.

General Rule

Treas. Reg. section 1.148-6(c) provides that upon the purchase or sale of a nonpurpose investment, gross proceeds of an issue are not allocated to a payment or a receipt 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.

Definition of Fair Market Value (FMV)

Treas. Reg. section 1.148-5(d)(6)(i) defines FMV to mean the price at which a willing buyer would purchase the investment from a willing seller in a bona fide, arm's length transaction.

Determination Date

Generally, FMV is determined on the date on which a contract to purchase or sell the nonpurpose investment becomes binding (i.e. the trade date rather than settlement date).

Rebuttable Presumption

Treas. Reg. section 1.148-5(d)(6)(i) provides that an investment that is not of a type traded on an established securities market, is rebuttably presumed to be acquired or disposed of for a price that is NOT equal to its FMV.

In this Section

This section contains the following topics:

Topic	See Page
Overview	C-28
Valuation Methods	C-29
Yield Burning	C-33

Valuation Methods

Introduction

The value of an investment on a date must be determined using one of the methods specified in Treas. Reg. section 1.148-5(d) consistently for all purposes of IRC section 148. The methods specified in Treas. Reg. section 1.148-5(d) apply to the following types of investments:

- plain par investments,
- fixed rate investments, and
- any investments.

Plain Par Investment

Treas. Reg. section 1.148-5(d)(1)(i) provides that a plain par investment may be valued at its outstanding stated principal amount, plus any accrued unpaid interest.. **(See Treas. Reg. section 1.148-1(b) for the definition of plain par investment.)**

Fixed Rate Investment

Treas. Reg. section 1.148-5(d)(1)(ii) provides that a fixed rate investment may be valued at its present value. **(See Treas. Reg. section 1.148-1(b) for the definition of fixed rate investment.)**

Definition of Present Value

Treas. Reg. section 1.148-5(d)(5) provides that the present value of an investment is computed under the economic accrual method, using the same compounding interval and financial conventions used to compute the yield on the issue.

Any Investment

Treas. Reg. section 1.148-5(d)(1)(iii) provides that an investment may be valued at its fair market value (FMV) on that date.

Continued on next page

Mandatory Rules

There are two mandatory valuation rules:

- Yield restricted investments are valued at present value. **(See Treas. Reg. section 1.148-5(d)(2).)** Example - a purpose investment or an investment allocable to gross proceeds in a refunding escrow after the expiration of the initial temporary period.

- Investment must be valued at FMV on the date that it is first allocated to an issue or first ceases to be allocable to an issue as a consequence of a deemed acquisition or disposition. **(See Treas. Reg. section 1.148-5(d)(3).)** Example - an issuer deposits existing investments into a sinking fund for an issue.

Continued on next page

Exceptions to Mandatory Valuation at FMV

Investments are not required to be valued at FMV if:

- the investments are yield restricted,
- the investment is allocated from one issue (exclusively tax-exempt bonds) to another (exclusively tax-exempt bonds) because of the transferred proceeds allocation rule under Treas. Reg. section 1.148-9(b) or the universal cap rule under Treas. Reg. section 1.148-6(b)(2),
- investments in a commingled fund (other than a bona fide debt service fund) unless it is an investment being initially deposited in or withdrawn from a commingled fund, OR
- the value of a nonpurpose investment that is allocated to transferred proceeds of a refunding issue on a transfer date, may not exceed the value of that investment on the transfer date used for purposes of applying the arbitrage restrictions to the refunded issue.

Special Rule for Treasury Obligations

Treas. Reg. section 1.148-5(d)(6)(i) provides that for Treasury obligations purchased directly from the US Treasury, the FMV is the purchase price. This includes State and Local Government Series (SLGs) obligations.

Continued on next page

Safe Harbors for Establishing FMV – Use of Purchase Price

The following safe harbors exist for the valuation of investments:

- Certificates of Deposit – Purchase price is fair market value on the purchase date. However, Treas. Reg. section 1.148-5(d)(6)(ii) limits this to where the yield on the CD must not be less than the yield on a reasonably comparable Treasury obligation and the highest yield on the CD must be currently available on a reasonably comparable CD offered to the public.

- Guaranteed Investment Contracts (GICs) – Purchase price is fair market value on the purchase date. However, Treas. Reg. section 1.148-5(d)(6)(iii) provides that, generally, bona fide bids are required to be solicited from three disinterested parties. There are also five other conditional requirements to use purchase price for a GIC.

  1. The issuer purchases the highest yielding guaranteed investment contract for which a qualified bid is made (determined net of broker's fees),

  2. The yield on the guaranteed investment contract (determined net of broker's fees) is not less than the yield then available from the provider on reasonably comparable GICs, if any, offered to other persons from a source of funds other than gross proceeds of tax-exempt bonds,

  3. The determination of the terms of the GIC takes into account the reasonably expected drawdown schedule for the amounts to be invested, exclusive of amounts deposited in debt service funds and 4-R funds,

  4. The terms of the GIC, including collateral security requirements, are reasonable, and

  5. The obligor on the GIC certifies the administrative costs that it is paying or expects to pay to third parties in connection with the GIC.

Yield Burning

Introduction

Yield burning is an industry term which refers to the improper transfer of arbitrage from the Federal government to some other party because of manipulation of the yield on the issuer's investments.

Yield Burning in Advance Refunding Transactions

Yield burning may occur in advance refunding transactions when an issuer pays more than FMV to a provider for escrow securities. Because an investment's price moves inversely to its yield, yield is "burned" if an issuer pays greater than FMV for an investment.

Curing Yield Burning Violations

Revenue Procedure 96-41, 1996-2 C.B. 301, outlines a procedure for issuers to enter into a closing agreement with the IRS to cure yield burning violations. **(See also Notice 96-49, 1996-2 C.B. 215)**

These documents are attached to this module as **Exhibits C-1 and C-2**.

Section 6

Administrative Costs of Investments

Overview

Introduction

This section discusses the treatment of qualified administrative costs in the determination of yield of an investment.

General Rule

As a general rule, Treas. Reg. section 1.148-5(e)(1) provides that an allocation of gross proceeds of an issue to an investment is NOT adjusted to take into account any costs or expenses paid, directly or indirectly, to purchase, carry, sell, or retire the investment (i.e. administrative costs) UNLESS those administrative costs are qualified.

Effect of General Rule

Unless the administrative costs are qualified, administrative costs do NOT increase the payments for, or reduce the receipts from investments. **(See Treas. Reg. section 1.148-5(e)(1).)**

In this Section

This section contains the following topics:

Topic	See Page
Overview	C-34
Qualified Administrative Costs of Purpose Investments	C-35
Qualified Administrative Costs of Nonpurpose Investments	C-36

Qualified Administrative Costs of Purpose Investments

Definition of Qualified Administrative Costs: Purpose Investments

Treas. Reg. section 1.148-5(e)(3)(ii)(A) provides that qualified administrative costs **for purpose investments** include costs or expenses paid, directly or indirectly:

- to purchase, carry, sell, or retire the investment,
- of issuing, carrying, or repaying the issue, and
- for any underwriters' discount.

Payments Made by a Conduit Borrower

Treas. Reg. section 1.148-5(e)(3)(i) provides that in a conduit borrowing, the qualified administrative costs of the conduit borrower are taken into account. This rule applies even if these payments merely reimburse the issuer.

Although the actual payments by the conduit borrower may be made at any time, for this purpose, a pro rata portion of each payment made by a conduit borrower is treated as a reimbursement of reasonable administrative costs, if the present value of those payments does not exceed the present value of the reasonable administrative costs paid by the issuer, using the yield on the issue as the discount rate.

Limitation for Program Investments

Treas. Reg. section 1.148-5(e)(3)(ii)(B) provides that for program investments, qualified administrative costs include only:

- costs of issuing, carrying, or repaying the issue, and
- any underwriters' discount.

Qualified Administrative Costs of Nonpurpose Investments

Definition of Qualified Administrative Costs: Nonpurpose Investments

Treas. Reg. section 1.148-5(e)(2)(i) provides that qualified administrative costs for nonpurpose investments 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.

Definition of Reasonable

Treas. Reg. section 1.148-5(e)(2)(i) provides that in general, administrative costs are not reasonable unless they are comparable to administrative costs that would be charged for the same investment or a reasonably comparable investment if acquired with a source of funds other than gross proceeds of tax-exempt bonds.

Rebate Costs

Treas. Reg. section 1.148-5(e)(2)(i) provides that general overhead costs and similar indirect costs such as employee salaries and office expenses and costs associated with computing the rebate amount under IRC section 148(f) are NOT qualified administrative costs.

<u>Example</u>
Fees paid for preparing Form 8038-T for a construction issue are not qualified administrative costs.

Special Rule for RICs and Commingled Funds

Treas. Reg. section 1.148-5(e)(ii) provides that generally, for regulated investment companies (RICs) and external commingled funds, qualified administrative costs include all reasonable administrative costs including indirect costs.

Prior Treatment of External Commingled Funds

The current regulations, effective for issues issued on or after July 8, 1997, changed the treatment of external commingled funds to include only widely held commingled funds. (**See Treas. Reg. section 1.148-5A(e)(2)(ii)(B) for the prior treatment of external commingled funds.)**

Continued on next page

Special Rule for GICs

Treas. Reg. section 1.148-5(e)(2)(iii) provides that a broker's commission or similar fee paid on behalf of the issuer or the provider for a GIC is treated as an administrative cost. Except in the case of an issue that is a $5,000,000 small governmental issue (as described in section 148(f)(4)(D)(i)), it is also a qualified administrative cost to the extent that the present value of the commission, as of the date the contract is allocated to the issue, does not exceed the lesser of a reasonable amount or the present value of annual payments equal to 0.05 percent of the weighted average amount reasonably expected to be invested each year of the term of the contract.

Prior Special Rule for GICs

The current regulations, effective for issues issued on or after July 8, 1997, rephrased the special rule for administrative costs associated with GICs. See Treas. Reg. section 1.148-5A(e)(2)(iii) for bonds issued prior to July 8, 1997.

Section 7

Audit Techniques

Overview

Introduction

This section discusses audit techniques for audits involving the valuation of investments.

Documents

Generally, you will need the following documents to calculate yield on investments:

- escrow agreements,
- list of investments, including any investment confirmation slips and copies of any SLG subscriptions,
- documents related to the cost of issuance,
- statements of account from the escrow trustee,
- investment contracts, including any GICs,
- disbursement requisitions submitted by the issuer to the trustee,
- a schedule, including allocation of the expenditure of bond proceeds, AND
- bond transcript and computation of bond yield.

GICs

When reviewing GICs, compare the interest rate on the short term, nonyield-restricted investments to the interest rate on longer term, yield-restricted investments.

Determine if the interest rates are consistent with the shape of the yield curve. (Generally, short-term rates are lower than long-term rates.)

Determine if the safe harbor was used.

Summary

Review of Module C

- Module C discussed the computation of the yield on investments. It is necessary to compute this yield in order to determine if invested bond proceeds have been properly yield restricted.

- Yield on an investment is the discount rate that, when used in computing the present value as 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 are amounts actually or constructively paid to acquire the investment.

- Receipts are amounts to be actually or constructively received from the investment, such as earnings and return of principal.

- Investments are investment property as defined in IRC sections 148(b)(2) and 148(b)(3).

- Treas. Reg. section 1.148-5(b)(2)(ii) separates investments into different classes. The yields on all investments within the same class can be blended.

- Yield reduction payments can be used to reduce the yield on certain investments.

- Investments are valued using one of three methods specified in Treas. Reg. section 1.148-5(d). Generally, this is fair market value, but "plain par", "fixed rate" and "yield-restricted" investments, as well as "GICs" and "CDs" have special rules for valuation.

- Only qualified administrative costs of investments are taken into account when computing the yield on the investments. The definition of qualified administrative costs is different for purpose investments, program investments, and nonpurpose investments.

Continued on next page

Summary, Continued

Preview of Module D

Module D discusses the allocation and accounting rules. To determine the type of bond that is issued and, thus, whether or not the bond is tax-exempt, it is necessary to examine the issuer's use of the bond proceeds.

If gross proceeds, for example, are spent for a governmental purpose, then the proceeds are deallocated from the issue and are no longer subject to yield and rebate restrictions. Invested proceeds, however, are potentially subject to both yield restriction and rebate.

The Code and accompanying regulations provide issuers with detailed guidance for the proper allocation and accounting of bond proceeds.

END OF MODULE C

Exhibit C-3

INVESTMENTS

PURPOSE

PROGRAM
(five requirements – see below)

- Student Loan
- QMRB
- QVMB

See Module H **See Module F**

NONPROGRAM

Missing at least one and likely missing all five requirements, i.e. most loans to conduit borrowers – rather than general public

NON-PURPOSE
(all that are not purpose - includes G.I.C.s)

- Yield Restricted
- Not Yield Restricted

1. The program involves the origination or acquisition of purpose investments.
2. 95% of the cost of the purpose investments acquired under the program represents one or more loans to a substantial number of persons representing the general public, state or political subdivisions, 501(c)(3)s, persons who provide housing and related facilities, or any combination of the foregoing. (90% for qualified student loans).
3. 95% of the receipts from the purpose investments are used to pay principal, interest, or redemption prices on issues that financed the program, administrative costs, pay or reimburse anticipated future losses directly related to the program, to finance additional purpose investments fro the same general purpose of the program, or to redeem and retire governmental obligations at the next earliest possible date of redemption.
4. Prohibits obligor on one of the purpose investments from purchasing these bonds.
5. Issuer has not waived the right to treat the investment as a program investment.