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## G. THE FIRST BOOK OF ARBITRAGE - OVERVIEW

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## 1. Introduction

Welcome to the Introduction to Arbitrage. While we tried to make it easy, we realize that this is a complex area of the law that we are asking you to start to master. The authors of the following subchapters would like to make you a promise. By reading and studying this article, you will be well on the road to a fundamental understanding of this area of the law. We have tried to break up complex concepts into manageable steps and have a little fun in the process.

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Arbitrage generally refers to the purchase of securities on one market for immediate resale on another in order to profit from a price discrepancy. For example, buying dollars in France for immediate resale in Italy where the market price for dollars is higher. But arbitrage has a specialized meaning for tax-exempt bonds as explained below.

## 2. What is Arbitrage?

Tax-exempt bonds generally have lower interest rates than taxable bonds. This is because investors are willing to accept a lower interest rate on a bond if they will not be taxed on the interest that they receive. For example, a city that is able to issue a tax-exempt bond at 6 percent might need to pay an interest rate of 8 percent if interest on the bond were taxable to the holders. This basic fact is the reason for "arbitrage" rules. Why? Because state and local governments can borrow on the tax-exempt markets, but then turn around and invest on the taxable markets. A city that borrows an amount at 6 percent by issuing tax-exempt bonds may be able to invest that amount in taxable securities having an interest rate of 8 percent. In this case the city would be able to make an investment profit of 2 percent because the city itself is, of course, not a taxable entity. The arbitrage rules try to keep state and local governments from issuing more bonds than otherwise necessary to take advantage of the investment opportunities, or "arbitrage," benefit. (The concerns that animate the federal government's position on this are explained on the next page.)

## 3. Purposes of the Arbitrage Rules

The purposes of the arbitrage rules are stated in Reg.1.148-0(a):

Section 148 was enacted to minimize the arbitrage benefits from investing gross proceeds of tax-exempt bonds in higher yielding investments and to remove the arbitrage incentives to issue more bonds, to issue bonds earlier, or to leave bonds outstanding longer than is otherwise reasonably necessary to accomplish the governmental purposes for which the bonds were issued.

In other words, the arbitrage rules generally seek to limit the amount of tax-exempt bonds that are outstanding at any time to those that are necessary to accomplish governmental purposes. The rules attempt to discourage "tax motivated" borrowing by state and local governments by taking away the investment benefits of arbitrage. If you think about the rules that follow in light of the motivations to earn arbitrage, they will be easier to understand.

## 4. Another Way of Thinking About Arbitrage

One way of thinking about the tax-exemption for interest on state and local bonds is that it provides a federal subsidy for state and local government borrowing. For example, assume that a city is able to borrow tax-exempt at a 6 percent interest rate. If its borrowing rate would otherwise be 8 percent on the taxable debt markets, IRC 103 in effect provides a federal subsidy to the city of 2 percent on all of its interest payments on the borrowing. If some state and local governments issue bonds for investment reasons, then they will get more federal subsidy than those that issue bonds only for their real governmental purposes. Thus, the arbitrage rules deal with the amount of subsidy given to a state or local government. This is different from the "use" rules (for example, under IRC 141 and 145), which concern who gets the subsidy rather than the amount of the subsidy. One goal of the arbitrage rules is to assure that the federal subsidy is fairly applied in proportion to real governmental purposes of state and local governments.

## 5. Preview of the Chapters

Let's briefly discuss all of the subchapters so you can have the big picture before you start on the details.

The article is divided into nine subchapters and an appendix.
Subchapter 1 provides a historical overview of the arbitrage law for tax-exempt bonds. A general sense of the history of the arbitrage rules should help you in understanding these provisions. In addition, it will give you a better sense of the prior law that you may need to apply if you are examining bonds issued many years ago.

Subchapter 2 deals with yield, which is probably the most important concept to understand in applying the arbitrage rules. The chapter starts by discussing some basic principles of finance and then discusses the basics of some of the yield rules that apply to arbitrage. Not only is an understanding of yield necessary for arbitrage and rebate, you may find it useful for your personal finances. You will now be able to make that informed decision between the 15 year fixed mortgage and the 20 year adjustable.

Subchapters 3 and 4 discuss the two basic arbitrage rules: yield restriction under IRC 148(a) and rebate under section 148(f). These two rules overlap and are in some ways duplicative. They both attempt to take away the incentives to issue bonds to make an arbitrage profit, but in different ways.

Subchapter 3 discusses the arbitrage yield restriction rules of IRC 148(a). These rules provide that an issuer of tax-exempt bonds can't invest the amount borrowed at a yield that is higher than the yield on the bonds. For example, the rules say that if a city borrows $\$ 1,000,000$ on a tax-exempt basis at 8 percent yield, the city generally can't invest that $\$ 1,000,000$ at a yield much higher than 8 percent. There are permitted exceptions that allow unrestricted investment in certain types of special funds.

Subchapter 4 discusses the rebate rules of section 148(f). These rules in general provide that, even if an issuer can invest at a higher yield because of the exceptions to yield restriction, the investment profit must be paid to the Treasury. A number of exceptions apply to allow the issuer to retain arbitrage profits.

Subchapter 5 discusses the "reimbursement" rules of Reg. 1.150-2. These rules apply for all tax-exempt bond purposes, not just arbitrage under IRC 148, but are for the most part directed at an arbitrage problem. These rules determine when bond proceeds are treated as spent rather than invested. When proceeds are spent is important for arbitrage purposes. When proceeds are spent on a governmental purpose the arbitrage restrictions no longer apply. In a reimbursement, proceeds are used to pay for expenses that have already been paid with other funds. The question to be determined is whether the allocation of bond proceeds to repay prior expenses will be considered an expenditure of bond proceeds. A successful reimbursement is significant for arbitrage purposes, because the funds allocated no longer need to be yield-restricted.

Subchapter 6 discusses refundings and advance refundings. A refunding of a tax-exempt bond issue is like the refinancing of your home mortgage. The issuer borrows new debt to pay off old debt. Refundings and advance refundings involve some of the most difficult arbitrage questions. A very large portion of the tax-exempt bonds that are outstanding are refunding bonds. In addition, advance refundings may be the type of bond that is most susceptible to arbitrage abuse. This won't be the last time we discuss these issues, but the article provides a good basis for understanding how these transactions
work.

Subchapter 7 briefly discusses arbitrage anti-abuse rules and replacement rules. Replacement rules in substance are a statutory "substance over form" rule to prevent arbitrage motivated borrowing. These concepts are particularly important in analyzing possible abuses.

Subchapter 8 winds up the arbitrage discussion by offering some practical examination suggestions.

Subchapter 9 discusses current developments dealing with other tax-exempt bond rules.

The Appendix contains the new manual supplement for the processing of exempt organization applications. This overview also includes a discussion of a few features of the manual supplement that need additional explanation.

## 6. The Manual Supplement

While the arbitrage discussion will be of interest principally to agents, the new Manual Supplement 76G-33, reprinted in the Appendix, will be of interest to determination specialists. The manual supplement contains a two-part risk assessment profile. The specialist is assessing the risk of private benefit and the likelihood that bonds will not qualify for tax-exemption or will be used to earn arbitrage profits. There has been some confusion about certain features of the risk assessment profile that we would like to clear up.
(1) Generally, applicants do not have to supply bond documents. Applicants will be asked to answer questions posed in a standard information letter. Applicants that wish to expedite the handling of their cases can submit answers to the Risk Assessment Profile when they submit their applications. This does not prevent you from asking for documents that you believe are otherwise necessary to properly resolve the application. For example, you may request a copy of the appraisal if property or facilities are being purchased.
(2) Applicants may be unable to supply all of the information necessary to complete the Risk Assessment Profile because they are too early in the process of bond financing to have the information. Provided that an organization can fully demonstrate that it would qualify for exemption if it were not participating in bond financing, the organization may receive a favorable ruling. A favorable ruling will only be issued if the organization agrees in writing to seek a
confirmation letter from the National Office when it has the information necessary to complete the Risk Assessment Profile. The National Office will issue a confirmation letter provided that the risk of private benefit is limited. Rev. Proc. 93-27, I.R.B. 1993-19, provides for a $\$ 100$ user fee for a request for a letter ruling to modify the terms or stipulations stated in an initial letter ruling. The confirmation letter procedure will be available for initial determinations made by the Key Districts and ruling letters written by the National Office. Once a ruling or determination is confirmed by the National Office, there is no need to request additional confirmation letters for new financing for the same organization.
(3) The new procedures assist the Key Districts in determining when to forward an application to the National Office. The Districts will solicit the information necessary to complete the Risk Assessment Profile. If the score is more negative than -7 the case will be transferred to the National Office. During the 18 month trial period, applicants who require expeditious treatment can provide the information and score the sheet. If the application scores more negative than a -7 , the case can be sent directly to the National Office. Receipt of applications in the National Office will be confirmed with the appropriate Key District. Because this is a substantial departure from normal processing methods, only applications submitted within two months of a bona fide date of issuance should use this procedure. This procedure will be confirmed in the manual.
(4) Pattern language currently in MS76G-33 for determination letters will appear in slightly revised form in IRM 7690, EP/EO Automated Processing Support Procedures Handbook.

## 1. HISTORICAL PERSPECTIVE <br> by <br> Barbara Beckman and Debra Kawecki

## 1. Introduction

This subchapter provides a brief roadmap through the regulatory history of arbitrage. Since 1986 there have been frequent changes in the regulations and it is easy to get lost in the maze. The June 1993 final regulations should relieve some of the difficulty. The goal of the new regulations was simplification. Issuers of outstanding issues can "buy in" to the new regulations. It is our expectation that the buy-in will be popular, thus permitting us to concentrate on the newest regulations. But we are providing a brief historical overview so you can find the applicable regulations if the need arises.

## 2. The Original "Arbitrage Bonds"

In 1965, the Service began to receive requests for rulings on the tax-exempt status of arbitrage bonds. One such ruling request was filed by a state commission. In substance, the commission planned to issue $\$ 100$ million in tax-exempt bonds, with only $\$ 10$ million of the proceeds to be used to pay the costs of the project for which the bonds would be issued. $\$ 90$ million of the proceeds would be invested in higher yielding Treasury obligations, the returns from which would cover all the debt service on the bonds. In this way, the commission would be able to pay for the planned improvements at no cost to itself. Thus, municipalities could use the tax code to finance projects and make money from investing bond proceeds at the same time. These bonds are called arbitrage bonds. The proceeds are used to make money by investing rather than paying for governmental projects. Ruling requests like the commission's request were subjected to close scrutiny because of concerns regarding arbitrage. Although arbitrage bonds could provide a way for municipal issuers to get a free ride for their projects, the market for tax-exempt bonds could become saturated by unproductive borrowing in amounts disproportionate to needs for actual governmental purposes. In addition, if a large volume of arbitrage bonds were issued, interest rates might increase and weaker local government borrowers might be crowded out.

After reviewing this ruling request, the Service concluded that the tax-exempt status of arbitrage bonds was doubtful. The Service issued Technical Information Release 840 (August 11, 1966), announcing that the Service would not issue advance rulings on the tax-exempt status of arbitrage bonds.

## 3. The First Legislative Response: The Tax Reform Act of 1969

In November 1967, Senator Ribicoff introduced a bill that would have denied tax-exempt status to arbitrage bonds. The Senator stated that the unchecked spread of
arbitrage bonds would pose a threat to federal revenues, and that the existence of arbitrage bonds on any sizeable scale would "drastically" increase the cost of state and local government borrowing to finance legitimate governmental functions. The language of this bill was similar to the language subsequently enacted in former IRC 103(c) as part of the Tax Reform Act of 1969.

The Treasury strongly supported Senator Ribicoff's bill partly because Treasury viewed arbitrage bonds as a distortion of the basic purpose of the interest exemption provided by IRC 103, which is to permit state and local governments to finance their governmental functions at a reduced interest cost. There was also the concern that, if the interest exemption is viewed as a federal subsidy, then permitting interest exemption for arbitrage bonds represents a waste of federal funds. Further, the Treasury believed that the existence of arbitrage bonds on any sizeable scale would substantially increase the cost of state and local government borrowing to finance traditional governmental functions.

The Tax Reform Act of 1969 added former IRC 103(c) to address these concerns by providing that the interest on arbitrage bonds is not tax-exempt. The section defined "arbitrage bonds" as follows:[T]he term "arbitrage bond" means any obligation which is issued as a part of an issue all or a major portion of the proceeds of which are reasonably expected to be used directly or indirectly--
(A) to acquire securities ... or obligations ... which may be reasonably expected at the time of issuance of such issue, to produce a yield over the term of the issue which is materially higher (taking into account any discount or premium) than the yield on the obligations of such issue, or
(B) to replace funds which were used directly or indirectly to acquire securities or obligations described in subparagraph (A).

While this definition was quite a mouthful, the most important thing to note is that it states the two most important rules of the original arbitrage law. The first is that whether a bond is an arbitrage bond depended on reasonable expectations of the issuer on the date the bonds are issued. This means that generally events after the issue date would not make a bond taxable. For example, an issuer certifies on the day of issuance that it reasonably expects not to earn arbitrage - the no arbitrage certificate - which you will find in the bond transcript. In most cases the bonds would not have been considered arbitrage bonds even if arbitrage profits were earned. You can see why the statutory system needed some work. The second important rule is yield restriction of investments. This means that, in order for a bond to be tax-exempt, the amount borrowed could not be invested to make a profit (that is, the investment return couldn't be higher than the borrowing cost).

In addition, the former IRC 103(c) provided for exceptions to permit investment of bond proceeds at unrestricted yield under certain specific conditions.

## 4. The Arbitrage Regulations

The Service first issued proposed regulations under former IRC 103(c) in 1970 and finalized arbitrage regulations in 1979 under former Reg. 1.103-13 through 1.103-15. These regulations, among other things, further defined the reasonable expectations standard and described the mechanics of yield restriction.

Most of the basic principles of former IRC 103(c) and the 1979 regulations are carried forward into current law revamped to capture the arbitrage profits for the Treasury. Although the 1979 regulations are no longer effective, they still can apply to bonds issued before August 15, 1993.

## 5. Rebate

Congress determined in the 1980s that the reasonable expectation/yield restriction approach of former IRC 103(c) was not enough to stop investment motivated tax-exempt bond deals. To take away more of the investment incentives of issuers, a different set of rules was added to the yield restriction rules: rebate to the federal government of arbitrage profits.

The first rebate requirements, enacted in 1980 and in 1984, applied only to industrial development bonds. The big change, however, was made in the Tax Reform Act of 1986. The Act contained a variety of tighter provisions for tax-exempt bonds, including tougher arbitrage rules under new IRC 148. The major difference between the former IRC 103(c) and IRC 148 is that the newer Code section extended the rebate rules to all categories of tax-exempt bonds. Moreover, instead of the "reasonable expectation" standard, IRC 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 IRC 148(f). For example, an issuer can fund a reserve fund that does not have to be yield restricted. The fund will earn arbitrage profits and not be considered an arbitrage bond. Unfortunately, the issuer can not keep the profits. They must be rebated unless an exception for rebate applies. So the good news for issuers is that arbitrage profit can still be earned under certain circumstances. The bad news for issuers is that, unless an exception applies, earnings must be rebated to the Treasury. Is the good news really good news if the issuer has to give the money back? It still is good news, because yield restriction can be difficult for the issuer. As noted, the June 1993 regulations will be your first place to look for guidance since issuers can choose to follow them for outstanding issues. But the following road map should be very helpful if prior regulations apply.

## 6. Rebate Regulations

The first rebate regulations were issued in January 1985 at Reg. 1.103-15AT. These regulations applied only to the rebate requirement that applied to certain types of industrial development bonds under former IRC 103(c)(6)(C) and (D) and are now of very limited significance.

Temporary regulations under new IRC 148 were issued in May 1989. These regulations (which appeared at section 1.148-0T through 1.148-9T) focused on the new rebate requirement under IRC 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. They viewed the regulation as too complex, poorly organized, lacking guidance on fundamental issues, and overly detailed in their treatment of some obscure abusive transactions. One problem is that no real attempt was made to mesh the 1979 arbitrage regulations with the new rebate rules. This makes 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.

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

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 section 148. These regulations were a complete rewrite and reorganization of the 1979 arbitrage regulations and the May 1992 rebate regulations. These new arbitrage and rebate 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 new regulations achieve simplification in part by relying heavily on general anti-abuse rules. These rules are described in subchapter 7.

You now have a road map to the regulatory history. The next piece of the puzzle to tackle is "yield." You have already read that certain funds need to be "yield-restricted" and that profits earned over a specific "yield" need to be rebated. But what exactly is "yield?" Turn the page and let's start to find out.

## 2. AN INTRODUCTION TO YIELD

by
Cheryl Chasin and Debra Kawecki

## 1. Introduction

Yield is the most important concept for the arbitrage and rebate rules. Yield can be thought of as either the economic cost of borrowing or the economic return from investing. The arbitrage and rebate rules deal with both types of yield from the issuer's perspective because they compare borrowing yield to investment yield. A large part of the regulations specifies how yield is determined in certain instances. Before going into any of the specific rules, however, let's get a basic understanding of what yield means. A general understanding of basic yield principles and problems will make the rules in the regulations much easier to understand.

## 2. Compounding of Interest

It may sound foolish, but when you are thinking of yield you almost have to think of a bond as a living thing. A bond is not just a piece of paper, issued to you as the bondholder, which merely allows you to receive a stated interest rate according to a schedule. That piece of paper is also a negotiable instrument. If you want to get out of bonds and into hog futures, you can sell it. In the case of revenue bonds, the amount you will receive depends in some part on the underlying facility and its success. If you bought Corrupt Village Tax Exempt Revenue Bonds Series A and the manager/former owner/developer is now on the French Riviera spending the bond proceeds, you may have a problem selling your bond because of the risk of default. You will have to sell at a substantial discount. But suppose you bought Perfect Tax Exempt Hospital Facility Bonds which are paying off just great. Can you sell those bonds for what you paid, or perhaps even more? The answer depends on what the bond market is up to.

Let's say your bond pays $10 \%$ interest to you each year and of course $10 \%$ to whoever buys it from you. That $10 \%$ is the coupon rate on the bond. Let's also assume that bonds of similar quality (similar risk) issued on the day you want to sell yours are paying $8 \%$. You're sitting pretty. Potential bond purchasers will pay you more than the face value of your bond (pay a premium in other words) in order to get that higher interest rate. Now for the down side. What if inflation is back and bonds issued on the day you want to sell your bond have a $15 \%$ coupon rate? You either decide not to sell, or you take a loss financially. Why should anyone pay face value for your $10 \%$ bond, when they can buy a $15 \%$ bond for the same money? Of course, you can probably find someone willing to buy your bond if you drop your price low enough (sell at a discount).

How much of a premium or discount? The answer to that involves an understanding of yield. Roughly speaking, it goes something like this. You have a $\$ 100$
face value bond paying $10 \%$ annually. The issuer of the bond will therefore pay you $\$ 10$ per year in interest and will continue doing so no matter what the market rate is. If bonds being issued today are paying $15 \%$ and you try to sell your $10 \%$ bond, a buyer will pay you only about $\$ 67$ for it. At that price, the $\$ 10$ interest payment the buyer will receive will equal approximately $15 \%$ of the amount paid for the bond. On the other hand, if bonds being issued today are paying $8 \%$, you can skip off to McDonald's and treat the family because investors will pay you $\$ 125$ for your $10 \%$ bond.

So your bond that looks so solidly dependable paying \$10 year after year is really a capricious negotiable instrument whose value varies depending on the market. You don't care, you say, because you have no plans to sell your bond and you will ride the market out. But, if the market goes up to $15 \%$ you have lost money even if you don't sell your bond because you have lost the opportunity to take back your $\$ 100$ and reinvest it at $15 \%$. We have been talking around the concept of yield. It is now time to hit it straight on.

All calculations of yield, including those involving calculations of rebate, are based on certain assumptions about economic behavior. The most basic of these assumptions is that available funds are always invested. That means that if someone gives you $\$ 1000$, you do not spend it on rent or a new camcorder. Instead, you invest it at the best rate you can find consistent with the degree of risk you are willing to accept.

Another basic assumption is that the actual value of an amount of money depends upon when you receive it. This assumption actually flows from the first one. If you receive $\$ 1000$ today, you will invest that $\$ 1000$ and one year from today you will have the $\$ 1000$ plus whatever it earned during the year. A good way to remember this rule is that "money now is worth more than money later."

Suppose you borrow $\$ 100$ from your mother. You agree to pay back your mom in two years, with interest at 8 percent. (She's tough but fair.) How much do you owe at the end of two years? At first blush, the answer would seem to be $\$ 116$ (\$100 of principal plus $\$ 16$ of interest for two years). This answer, however, ignores earnings of "interest on interest." This "interest on interest" is called compounding. The actual worth of a particular interest rate depends upon how often the compounding is done. The more frequent the compounding, the more interest upon which interest is earned. Thus, an interest rate of $5 \%$ compounded quarterly is worth more than one compounded annually. For example, $\$ 1000$ invested at $5 \%$ compounded annually will yield $\$ 50$ in one year. But the same amount and the same interest rate, compounded quarterly, will yield approximately $\$ 51$ in one year. The dollar amount of the difference in this example is very small. But if you consider larger sums of money and more frequent compounding, the differences will be quite significant.

For example, suppose that you agreed to pay your mom interest at the end of the first year, but that if you did not make that payment, you would pay interest on interest for
the second year. You would owe $\$ 116.64$ at the end of two years ( $\$ 100$ of principal, plus $\$ 8$ of interest for the first year, plus $\$ 8.64$-- or $\$ 108$ times . 08 -- for the second year). Welcome to the magic of compound interest. Yield for arbitrage and rebate purposes is computed by assuming that this sort of compounding occurs. You might still think that this slight difference ( 64 cents) is not really worth worrying about and that your mom is being excessively picky. But tax-exempt bond issues greater than $\$ 100$ million are common and 64 cents times $\$ 100$ million would make anyone's mom pay attention.

Suppose that you agree with your mom that your \$100 loan will compound interest semiannually. Who made the best financial decision, you or your mom? Apparently, financial matters should be left to your mom because you would owe $\$ 116.99$ at the end of two years. This is computed by assuming that you should pay $\$ 4$ of interest at the end of the first six months. Because you do not actually make the interest payment, you pay interest on $\$ 104$ for the second six months, and so on. One important point to note is that yield can not be determined unless the compounding period is known. Most tax-exempt bond issues use semiannual compounding. Most moms use daily compounding based on a 360 day convention as this gives them 360 opportunities to ask you for the money.

## 3. Present Value and Future Value

The regulations use the terms "present value" and "future value." Are these difficult concepts?

Let's say that in two years you want to purchase a new sports car which will cost \$Y ( $\mathrm{Y}=$ future value). You want to know how much you need to put aside today, \$X (X = present value), to earn enough interest to grow into $\$ \mathrm{Y}$ by the big day. You can look at this in different ways, such as to find what interest rate you have to get to turn X (present value) into Y (future value). Or you could solve for time, to see how long you will have to wait for a given interest rate to turn your modest sum, X , into that fabulous sum, Y. If you have a spiffy financial calculator, you can also calculate the present or future value of a series of payments, such as the semi-annual interest payments you receive when you won a bond.

The magic of compound interest is what makes money grow. But how much does it grow and how fast? A financial calculator will surely give you the answer but so will some simple calculations - provided you have the patience to keep multiplying. It good to know the mathematical approach, because you can see directly how changing the variables of interest rates and compounding schedules can effect future value. You can also check up on your calculator.

Example 1. Your mom is offering a savings account at $10 \%$ interest compounded quarterly. You've always trusted your mom, so you deposit $\$ 1000$ with her on 10/1/91. But you want to know how much you can expect to receive from her on $10 / 1 / 94$, in three
years. Here is the table which is produced by your mom and her financial calculator. She calculates that if you leave the money with her you will have $\$ 1344.89$ provided you don't annoy her during the next three year.

| Date | Deposit | Interest | Balance |
| :---: | :---: | :---: | :---: |
| 1/1/92 | \$1000 | \$25 | \$1025 |
| 4/1/92 | 1025 | 25.625 | 1050.625 |
| 7/1/92 | 1050.625 | 26.26562 | 1076.890 |
| 10/1/92 | 1076.890 | 26.92226 | 1103.812 |
| 1/1/93 | 1103.812 | 27.59532 | 1131.408 |
| 4/1/93 | 1131.408 | 28.28520 | 1159.693 |
| 7/1/93 | 1159.693 | 28.99233 | 1188.685 |
| 10/1/93 | 1188.685 | 29.71714 | 1218.402 |
| 1/1/94 | 1218.402 | 30.46007 | 1248.862 |
| 4/1/94 | 1248.862 | 31.22157 | 1280.084 |
| 7/1/94 | 1280.084 | 32.00211 | 1312.086 |
| 10/1/94 | 1312.086 | 32.80216 | 1344.888 |

Of course, you want to check her calculations but she won't let you use her calculator. Can you do it? It is very straight-forward with the following formula:

$$
\$ 1000 \times(1+.10 / 4)^{12}=\$ 1344.888
$$

$\$ 1000$ is your initial payment. . 10 is the interest rate which you need to divide by 4 because mom compounds quarterly. Twelve is the number of compounding periods (3 years X 4 times a year). Don't ask what the 1 is for, this is math and its supposed to be mysterious. What if mom let's you use her calculator. You key in 1000 for future value, $10 / 4$ is keyed in as the interest rate, and 12 as the number of compounding periods. As the calculator to determine future value. You really should be nice to your mom so that she will let you use her calculator because the answer is instantaneous as opposed to you multiplying $(1+.025) \times(1+025) \ldots 12$ times.

Now that you know the formula, let's try it out with some variables. This will help you a lot because you can see how future value grows and shrinks as interest rates and compounding periods change. With a little knowledge, you may be able to work a better deal with your mom.

Example 2. What happens to future value if your mom pays interest at a rate of $15 \%$, compounded quarterly? The only change to make in the formula is to divide .15 by 4 instead of .10 by 4 .

$$
\$ 1000 \times(1+.15 / 4)^{12}=\$ 155.454
$$

Knowing your mom as well as we do, you probably won't get such a deal but it would be nice.

Example 3. What happens to future value if the interest rate is compounded monthly? You divide $10 \%$ by 12 months and the compounding periods become $3 \times 12$ or 36.

$$
\$ 1000 \times(1+.10 / 12)^{36}=\$ 1348.41
$$

Clearly not as exciting as $15 \%$ interest.

Your mom has come up with a new deal. She will pay you $\$ 1331$ in three years. So, if you give her $\$ 1000$ now, she will pay you $\$ 1331$ in three years. She claims this arrangement is at $15 \%$ interest. Should you take up her offer? Instead of determining future value as we have been doing, we know future value is $\$ 1331$, we know the interest rate and the compounding period. What we don't know is present value. How much money you need to invest at $15 \%$ to reach $\$ 1331$. For simplicity sake, mom will only compound annually. Our handy formula changes a bit to solve for present value. Unfortunately, fractions are involved! But if mom can do it, you can do it too.

$$
\$ 1331 \times(1+.15)^{3}=\$ 875.1541
$$

Your mom can not be trusted! You only need to give her $\$ 875$. Don't you wonder what your $\$ 1000$ would grow to for your mom if she could invest it at $15 \%$ ?

$$
\$ 1000 \times(1+.15)^{3}=\$ 1520.87
$$

You nearly gave your mom an additional \$189!
Now that you have the two formulas and some time, try changing interest rates, maturities, and compounding periods. It will give you a much better feel for the time value of money, the magic of compound interest, and the relationship between a bond's selling price and the prevailing interest rates.

## 4. Premium and Discount

Suppose you borrow $\$ 95$ from your mom but agree to repay her $\$ 100$ at the end of two years and to pay interest on $\$ 100$ at 8 percent compounded semiannually. You might say that you are paying "interest" at a rate of 8 percent, but your actual borrowing cost, or her "yield", will be higher than 8 percent because you will also have to pay back the extra $\$ 5$ that you never received. This $\$ 5$ is treated as interest. Your actual borrowing cost would be about 10.68 percent, compounded semiannually. You have borrowed from your
mom at a discount which is a fairly expensive way to go,

Suppose you borrow $\$ 105$ from your mom but agree to repay her $\$ 100$ at the end of two years and to pay interest on the $\$ 100$ at 8 percent. Your actual borrowing cost would be about 5.48 percent, compounded semiannually. You would have borrowed at a premium.

Tax-exempt bonds are very frequently issued at a discount and are commonly, but somewhat less frequently, issued at a premium.

Because yield can be dramatically affected by sale of bonds at a discount or premium, the regulations provide special rules for these situations. One important point to remember, however, is that you usually will not be able to determine the yield on a bond issue simply by looking at its stated interest rate or, as we have found out, by listening to your mom.

## 5. The Yield Curve

Your mom is in bankruptcy so you go to your kid brother for your next $\$ 100$. You are in a bad financial situation because all your assets were invested with your mom. You want to pay back the loan in 5 years rather than 2 years. Your kid brother will definitely ask you to pay a higher interest rate -- say, 10 percent rather than 8 percent -- because he gives up his money for a longer time. In fact, shorter term borrowing generally have a lower yield than longer term borrowing. For example, interest rates on 15 year mortgages are usually lower than interest rates on 30 year mortgages. This change in interest rates depending on the term of the borrowing is sometimes described as the "yield curve" (because it can be plotted on a graph). The yield curve changes over time as the financial markets change. For example, sometimes the difference between the yield on a two-year borrowing and a 5 -year borrowing is much greater than at other times.

A single tax-exempt bond issue will usually have bonds with many different maturities. Each maturity may have a different interest rate. How is yield computed?

Assume that on July 1, 1994 you borrow $\$ 200$ from your kid brother. You agree to pay back $\$ 100$ in two years and to pay interest at a stated rate of 8 percent per year on that amount compounded and payable semiannually. You agree to pay back the other $\$ 100$ in four years and to pay interest at a stated rate of 10 percent on that amount compounded and payable semiannually. What is your "yield" on this borrowing. In order to figure this out you need to compare what you get to what you pay. What you get is $\$ 200$ on July 1, 1994. In the terminology of the regulations, what you get from the borrowing is called "issue price". What you pay is a series of payments over a four year period to July 1, 1998. These payments are principal and interest. To compute yield you need to lay out a schedule of your payments: The $\$ 9$ payment is calculated as follows, ( $8 \%$ divided by 2 )
plus $(10 \%$ divided by 2$)(100)$ or 4 plus 5 . This is because you need to pay the "little twerp" interest on the second hundred dollars at $10 \%$ as well as the first hundred at $8 \%$.

| Date | Payments | PV $(9.294$ |
| :--- | ---: | ---: |
| 1/1/95 | $\$ 9$ | $\$ 8.6003$ |
| $7 / 1 / 95$ | 9 | 8.2184 |
| $1 / 1 / 96$ | 9 | 7.8535 |
| $7 / 1 / 96$ | 109 | $\mathbf{9 0 . 8 9 0 3}$ |
| $1 / 1 / 97$ | 5 | 3.9841 |
| $7 / 1 / 97$ | 5 | 3.8072 |
| $1 / 1 / 98$ | 5 | 73.0081 |

## Present Value $=$ Issue Price

## $\$ 200.0000$

The overall yield on your borrowing is 9.2942 percent per year, compounded semiannually. This is, in effect, the "blended" borrowing yield taking into account the 8 percent loan and the 10 percent loan. Looked at in another way, your kid brother gets an investment return of 9.2942 percent on the deal as a whole. How is this yield computed?

## 6. Yield for Yield Restriction and Rebate Rules

The new regulations provide that yield is determined the same way for both yield restriction and rebate rules, with a few exceptions. The rules for borrowing yield, or "yield on an issue," are generally found in Reg. 1.148-4 and pertain to yield restriction. The rules for investment yield are generally found in Reg. 1.148-5 relating to rebate.

## 7. Fixed Yield Issues and Variable Yield Issues

Now lets's turn briefly to an overview of some of the rules in the regulations that deal with yield. Perhaps the most important point to keep in mind is that the regulations have different rules for fixed yield issues and variable yield issues. What is the difference between these types of issues? A fixed yield issue has a yield that is fixed and determinable on the date of issue, taking into account certain assumptions provided in the regulations. This is like a conventional fixed rate mortgage for your home. A variable yield issue has a yield that is not fixed on the issue date. This is like an adjustable rate mortgage for your home.

Most municipal bonds are issued as fixed yield issues. This is probably because most municipalities are conservative and don't like to be exposed to interest rate risk. A large percentage of tax-exempt bonds, however, are issued as variable yield issues. These municipal variable rate bonds have interest rates that change weekly or monthly
depending on current market conditions.

The rules for determination of bond yield appear in Reg. 1.148-4. The basic rule for fixed yield issues is that yield is determined once, on the issue date, and that subsequent events do not change the yield on the issue. This rule may not always be precisely the same as the issuer's actual economic yield, but the rule provides simplification because yield generally needs to be computed only once. The regulations identify certain cases where subsequent events can significantly distort yield, such as early redemption of bonds that are issued at a significant discount or premium. The regulations provide for some special rules to deal with these cases.

The basic rule for variable yield issues is much different. For these bonds, yield must be computed separately for new periods on an ongoing basis, based on actual historical interest rates looking back over each applicable yield period. The issuer must break up its issue into one-year or five-year periods and compute a yield for each of those periods. It wouldn't be possible to compute yield for variable yield issues once on the issue date, because the interest rate on the bonds in the future isn't known on the issue date.

Fixed yield municipal issues most commonly have terms between 20 and 30 years. A typical issue may consist of many different bonds with different interest rates. For example, a 20- year issue commonly would have bonds with 12 different interest rates. Each maturity for the first 10 years might have a different interest rate. (Short-term bonds with different interest rates in each succeeding year are called "serial bonds"). In addition, the bonds maturing in years 15 and 20 might have different interest rates. (These long-term bonds are called "term bonds"). Because most municipal bonds pay interest semiannually, a typical yield computation may involve 40 to 60 different entries.

The legal documents for a bond issue almost always contain a "debt service schedule." This shows the total principal and interest payments for the issue. Typically this will appear in the official statement. The official statement is the offering document used to sell the bonds to investors. In addition, the issuer's computation of yield usually will appear in the "no-arbitrage certificate" for the issue. This certificate is almost always part of the transcript and is the key tax document for the issue.

## 8. Issue Price

The regulations provide that yield is based on issue price. In addition, IRC 148(h) provides that, for purposes of arbitrage yield restriction and rebate, "the yield on an issue shall be determined on the basis of issue price (within the meaning of sections 1273 and 1274)."

As stated above, issue price is "what you get" when you borrow. In the simple example above, issue price is $\$ 200$. Issue price can be tricky.

Now your kid brother tells you that he does not want to make a loan to you. Instead, he tells you that he knows a secret investor who would like to make the loan to you. (You don't ask.) He tells you that he's going to make the $\$ 200$ loan to you and then sell your $\$ 200$ note to the secret investor for $\$ 200$. Of course he is going to charge you $\$ 2$ as a fee for acting as a middleman. You actually receive $\$ 198$ for your $\$ 200$ loan. What is your issue price -- $\$ 198$ or $\$ 200$ ? The answer under the 1986 Act is $\$ 200$. You do not get to reduce your issue price by the amount of costs that you pay to receive the loan. You are treated as receiving $\$ 200$ and then paying a $\$ 2$ fee to your friend. In a bond issue, these $\$ 2$ fees would be called "costs of issuance."

The arrangement described above is essentially what happens in most municipal bond issues. An underwriter acts as a middleman and in effect charges a fee to place the bonds with investors. For example, suppose that Marsh City issues a $\$ 10,000,000$ issue. An underwriter offers the bonds for sale to investors at par (100 percent of the principal amount). The underwriter retains a fee of $\$ 200,000$ for its services. This is called the "underwriter's discount". Marsh City actually receives only $\$ 9,800,000$, but for arbitrage purposes it is treated as receiving $\$ 10,000,000$ and paying $\$ 200,000$ to the underwriter. The issue price is $\$ 10,000,000$.

The Tax Reform Act of 1986 changed the rule for determining issue price for purposes of computing arbitrage yield. Under prior law an issuer could generally take its costs of issuance into account to increase yield. In the example above, the issue price of the Marsh City bonds would have been $\$ 9,800,000$. This result stems from a 1982 court case called State of Washington v. Commissioner, 692 F. 2d 128 (1982), which held invalid a regulation that didn't permit issuers to take costs of issuance into account to increase borrowing yield.

Why did Congress provide that issuers no longer get to take costs of issuance into account to increase yield? Part of the answer is that, if an issuer has to pay the costs of issuing a bond and those costs are not indirectly subsidized through the tax laws, the issuer is more likely to consider carefully whether the bond needs to be issued.

One easily confused point to keep in mind is that underwriter's discount is not the same as original issue discount or premium. Original issue discount or premium does change yield. For example, assume that your friend agrees to give you $\$ 195$ and in exchange you agree to pay him back $\$ 200$, with interest. The $\$ 5$ that you don't receive when you borrow is called "original issue discount". Issuing bonds with original issue discount increases yield to the lender. We say the relationship between discount and yield in prior section 4.

## 9. Qualified Guarantees

Suppose that you propose to borrow $\$ 100$ from your kid brother and to pay him back in two years, with interest at 8 percent. Your kid brother is concerned that, because your finances are weak, you may not be able to pay him back the money. After all, he knows mom absconded with all your savings. He tells you that he's willing to loan you the money at 8 percent, but suggests that you get a bank to guarantee repayment of the loan. If you get this guarantee, he'll loan you the money at 6 percent. He's willing to take the lower interest rate with the guaranteed loan because he won't need to worry about the risk that you won't be able to repay. The bank agrees to give the guarantee, but charges a fee of 1.5 percent of the principal amount each year. Your effective borrowing rate is about 7.5 percent ( 6 percent interest plus 1.5 percent in guarantee fees). The regulations provide that fees for qualified guarantees are treated as additional interest (like original issue discount) rather than as costs of borrowing. So they affect yield.

The regulations place some limits on the rule that qualified guarantee payments increase yield. One important point is that the issuer must reasonably expect that the guarantee will result in interest rate savings. In the regulation language, "the issuer must reasonably expect that the present value of the fees for the guarantee will be less than the present value of the expected interest savings for the guarantee." The yield on the issue, determined with regard to the guarantee payments, is used to compute present value. In our simple example, the bank guarantee would meet this rule because the present value of the fee of 1.5 percent per year is less than the present value of the interest rate savings of 2 percent per year. Another important requirement is that the guarantee must be a guarantee in substance -- that is, it must be a secondary liability and credit risk must be transferred to the guarantor.

# 3. AN INTRODUCTION TO YIELD RESTRICTION RULES <br> by <br> Cheryl Chasin and Debra Kawecki 

## 1. The Mayor's Dilemma

To help focus our discussion, let's pretend that you are the mayor of Marsh City, USA and you are responsible for directing the use of bond proceeds. Although our example uses governmental bonds, the discussion applies to all tax-exempt bonds, including qualified 501(c)(3) bonds.

In the last election, the voters approved a $\$ 20$ million bond issue to fund a new hospital for the community. The proceeds from the bond issue will be used to purchase a large piece of vacant land and to fund construction of the Marsh City hospital. Since these bonds are issued by a municipality solely for governmental purposes, you don't need to worry that the bond proceeds are used for a purpose not permitted for tax-exempt bonds. You must still be certain that the bonds comply with the arbitrage rules.

The bonds have been issued by Marsh City and sold to investors by your underwriter. You, as mayor, have to decide what to do with the bond proceeds until you close the purchase agreement with the seller and construction on the site is completed. Certainly, you are not going to just keep the proceeds in your office safe. You want to place the bond proceeds in an investment account so that they will make money while the project is put into place.

Your financial advisor tells you that you can invest in taxable securities that have a yield of 12 percent. Since the yield on your municipal bonds is 10 percent, you will make money from the 2 percent difference. There is only one problem with your financial advisor's investment plan. The 2 percent difference between the yield on your tax-exempt municipal bonds and the securities is called arbitrage. What your financial advisor should have told you is that investing your bond proceeds at a higher yield than the yield on the bonds may be prohibited by IRC 148, turning your tax-exempt bonds into arbitrage bonds. Under IRC $103(\mathrm{~b})(2)$ interest on arbitrage bonds is not tax-exempt and it must be included in the gross income of the holders of your bonds. Therefore, instead of having a tax-exempt bond, you may have a taxable bond.

Suppose you took the advice of your financial advisor, investing the bond proceeds in taxable securities yielding 12 percent. After you have made this investment, your attorney advises you that the bonds are arbitrage bonds. What are the consequences?

Because the bonds are now arbitrage bonds, the interest is no longer tax-exempt to the bondholders. Your bond trustee will be required to file Form 1099 for the interest received by each bondholder. Once they receive the $1099-I N T$ forms from the trustee, the
bondholders will have to report the interest to the Service on their returns. Finally, if your bonds are determined to be arbitrage bonds you, the mayor, may have a more difficult time selling new bond offerings, because investors may not want to take a chance on your bonds. It's time to find another financial advisor. Now, let's look at the purpose behind the arbitrage rules.

## 2. Purpose

As noted above, the purpose of the arbitrage rules is to minimize arbitrage benefits from investing gross proceeds of tax-exempt bonds in higher yielding investments and to remove the arbitrage incentives to issue more bonds, to issue bonds earlier, or to leave bonds outstanding longer than is otherwise reasonably necessary to accomplish the governmental purposes for which the bonds were issued. If you, as Mayor of Marsh City, continued to invest your bond proceeds at a 12 percent yield, you might be able to fund a significant portion of the hospital construction through the 2 percent difference in yield between the tax-exempt bonds and the taxable investments you purchased. If you were able to let your bond proceeds earn 12 percent for a long period, you might make enough on the investment to pay for most of the project. In order to make as much investment profit as possible, you might issue your bonds earlier than you otherwise would, solely to have a longer time to invest, or issue more bonds than you otherwise would, solely to have more proceeds to invest.

## 3. Section 148(a): A Continuation of Prior Law

The rules dealing with arbitrage are contained in IRC 148. IRC 148(a) sets forth the basic yield restriction rule. IRC 148(f) sets forth the basic rebate rule.

An arbitrage bond is defined in IRC 148(a) as "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 to (1) acquire higher yielding investments, or (2) to replace funds which were used directly or indirectly to acquire higher yielding investments." Note that this is very similar to the definition in former IRC 103(c). The rule looks to reasonable expectations on the issue date and in general requires yield restriction of investments.

IRC 148(a) also states that a bond will be treated as an arbitrage bond if an issuer intentionally invests in higher yielding investments in a way that is not otherwise permitted. This restriction against subsequent intentional acts to earn arbitrage was added to the Code in the Tax Reform Act of 1986. Legislative history indicates that this was a clarification of prior law. Prior to 1986 the Service interpreted former IRC 103(c) as prohibiting subsequent intentional acts to earn arbitrage, even though the Code expressly referred only to reasonable expectations on the issue date. See, for example, Rev. Rul. 80-91 and Rev. Rul. 80-92.

## 4. Proceeds

The definition of arbitrage bond in the IRC 148(a) yield restriction rule refers to "proceeds." The definition of arbitrage bond in the section 148 (f) rebate rule refers to "gross proceeds." The new regulations provide that both yield restriction and rebate rules apply to the same "gross proceeds."

The definition of "gross proceeds" is one of the fundamental building blocks of the arbitrage rules, because it identifies the funds to which the rules apply.

Reg. 1.148-1 defines "gross proceeds" as "any proceeds and replacement proceeds of an issue." "Proceeds" is defined as "any sale proceeds, investment proceeds, and transferred proceeds of an issue." Sale proceeds and investment proceeds are the easiest types of proceeds to understand. Sale proceeds are basically what an issuer gets from a borrowing on the issue date. In the terminology of the regulations, sale proceeds are "any amounts actually or constructively received from the sale of the issue, including amounts used to pay underwriters' discount or compensation and accrued interest other than pre-issuance accrued interest." Investment proceeds are investment earnings on proceeds.

The other component of proceeds, "transferred proceeds," needs a bit more explanation. Transferred proceeds occur only when one bond issue pays off, or "refunds," another. You are borrowing again. This time you approach your grandmother as your kid brother is temporarily out of funds. Suppose you borrow \$100 from grandma on January 1, 1994, at a yield of 9 percent. Plus you make a promise to watch your fat intake. Six months later, on July 1, 1994, you still have $\$ 40$ of that loan that you haven't spent yet. (Doesn't sound like you, but this is fiction.) Interest rates have dropped, so you borrow $\$ 100$ from a bank at a 7 percent yield to pay off your grandmother immediately. As soon as you pay off the 9 percent borrowing, you are in effect borrowing at 7 percent. Your $\$ 40$ of unspent proceeds is now being carried by 7 percent debt rather than 9 percent debt. For purposes of the regulations, the $\$ 40$ becomes "transferred proceeds" of the new 7 percent borrowing. Transferred proceeds and other rules that apply to refundings will be discussed in greater detail in subchapter 6.

Gross proceeds also include "replacement proceeds." "Replacement" is one of the basic "substance over form" rules in the arbitrage area and is discussed in more detail in subchapter 7. Replacement proceeds are amounts that are treated as proceeds, but are not directly proceeds. (Are you following this?) For example, if an issuer had on hand an amount that was dedicated to a particular project, and then issued bonds to pay for the same project, the amount already on hand might be treated as replacement proceeds. The idea is that, if not for the investment benefit of investing bond proceeds, the issuer would not have issued the bonds, because it already had funds dedicated to the project.

## 5. Purpose Investments and Nonpurpose Investments

The arbitrage yield restriction and rebate rules apply only to investments. The regulations have different rules for two general types of investments: purpose investments and nonpurpose investments. Purpose investments are investments that carry out the governmental purposes of an issue. Examples are a loan made to a 501(c)(3) organization with the proceeds of a qualified $501(\mathrm{c})(3)$ bond and the mortgage loans made to homeowners with the proceeds of qualified mortgage bonds. Purpose investments only occur when a governmental issuer makes loans. In most governmental (non-private activity bond) issues no purpose investments are made because the state or local government directly spends the bond proceeds.

A nonpurpose investment is any investment property that is not a purpose investment. Nonpurpose investments are the investments made with bond proceeds before the proceeds are spent on a governmental purpose.

If an issue has purpose investments, arbitrage rules must be applied at two levels. For example, assume Marsh City issues a $\$ 10$ million issue and loans all of the proceeds to Marsh Community Hospital, a 501(c)(3) organization. The loan to Marsh Community Hospital will be a purpose investment. Suppose Marsh Community Hospital does not immediately spend all of the $\$ 10$ million, but rather invests it until needed for construction expenses. The $\$ 10$ million of investments held by the 501(c)(3) organization will be nonpurpose investments.

This article focuses mostly on the arbitrage rules that apply to nonpurpose investments. Among other things, the rebate requirement applies only to nonpurpose investments and not to purpose investments.

Only yield restriction (rather than yield restriction and rebate) rules apply to purpose investments. These rules have a somewhat different purpose than the rules that apply to nonpurpose investments. Rather than being principally directed at preventing issuance of unnecessary bonds, the purpose investment rules attempt to assure that the benefit of the tax-exempt interest rate is being passed through to an appropriate purpose.

Special rules apply to a particular type of purpose investment called a "program investment." These rules generally deal with governmental programs that need to make a large number of loans with the proceeds of tax-exempt bonds. For example, a housing authority might make thousands of mortgage loans to homeowners with the proceeds of a tax-exempt bond issue. The regulations provide for a larger permitted yield spread above the bond yield (generally $11 / 2$ percent) for program investments on the theory that the administrative costs of operating the program are greater than the cost of making a single loan.

The discussion of "materially higher yield" below touches on some of the specific rules for purpose investments.

## 6. Investment Property

The arbitrage restrictions apply to "investment property" under IRC 148. Investment property is defined as including any security, obligation, annuity contract, and "investment-type property." The Tax Reform Act of 1986 expanded the scope of the arbitrage rules with this definition. Under prior law the arbitrage restrictions generally applied only to securities and obligations. The regulations define investment-type property as including other types of property that are held principally for the passive production of income. For example, prepayments for goods or services may involve investment-type property.

Tax-exempt bonds are not treated as investment property unless the interest on the bonds is subject to the alternative minimum tax. (The interest on most types of qualified private activity bonds is subject to the alternative minimum tax, except qualified 501(c)(3) bonds.) This means that issuers can avoid the yield restriction and rebate requirements altogether by investing in other tax-exempt bonds. For certain types of issues where compliance with yield restriction is very difficult, investment in tax-exempt bonds is a common practice for issuers. As Mayor of Marsh City you may want to invest your variable rate bond proceeds in qualified 501(c)(3) bonds as governmental bonds. You won't have to yield restrict or rebate, saving yourself a major headache.

## 7. Reasonable Expectations

The definition of arbitrage bond in IRC 148(a) states that a bond is an arbitrage bond if it is reasonably expected, at the time the bonds are issued, that the proceeds will be invested in higher yielding investments. Because reasonable expectations was the sole statutory standard under prior law, the 1979 arbitrage regulations contain detailed rules on how an issuer establishes its expectations.

The regulations contained an unusual provision that gave to state and local governments the ability to conclusively establish facts about their expectations in a certificate. See former Reg. 1.103-13(a). The regulations provided, however, that an issuer could not in general establish matters of law in a certificate, including whether a bond was an arbitrage bond. The regulations contained a more liberal provision for issues with a face amount of $\$ 2,500,000$ or less. This "arbitrage certificate" or "non-arbitrage certificate," (the terminology you use is a matter of personal preference) is a part of almost all tax-exempt bond deals. Typically it appears as a separate document in the bond transcript. The arbitrage certificate is an important document that should be reviewed in an examination because it lays out the factual basis for the issuer's determination that its bonds comply with the arbitrage rules.

The arbitrage certification became much less significant after the rebate requirement was imposed on issuers. Rebate in general represents a rejection of the whole reasonable expectations approach because compliance with the arbitrage rules under rebate is based on actual investment experience rather than expected investment experience. But for bond issues that are exempt from rebate, the certification provision still has importance.

The new regulations provide that the arbitrage certificate has no special evidentiary significance. That makes sense because of the shift from reasonable expectations to actual investment history (Reg. 1.148-2). Issuers are still required by the regulations, however, to complete an arbitrage certificate in most cases.

## 8. How To Earn Some Money And Avoid The Arbitrage Bond Label

You have obtained a different financial advisor, who is aware of the need to avoid unrestricted yield in the investment of the bond proceeds. However, your job as mayor requires you to invest municipal funds at the best, safest rate of return. IRC 148(c) through (e) provide a solution in the form of several exceptions to yield restriction that permit investment of proceeds at higher yields under very specific circumstances without having the bonds declared arbitrage bonds.

Despite the availability of ways to avoid the arbitrage bond label, it will become clear as we progress through these exceptions that issuers of tax-exempt bonds who receive income from investing bond proceeds in higher yielding investments face an unhappy reality. Here is the bottom line: although IRC 148(c) through (e) permit unrestricted yield in some situations for a limited period of time, you owe the Federal government the difference between the yield you earned on the investments and the yield on the bonds. Of course, there are exceptions to the rebate requirement. But that's the subject of the next chapter.

So, even though your savvy new financial advisor will be able to use investment strategies that will bring in higher yields, while avoiding the ultimate penalty of having the bonds become arbitrage bonds, you may not be able to keep all the amounts you earned from investing the bond proceeds at higher yields.

## 9. Reasonable Temporary Period Exception

The major expense of the hospital project will be the construction of the hospital. This aspect of the project will take some time. Construction of this type of facility is a lengthy process, and in your climate construction delays are standard. In the meantime you, as mayor, want to invest the construction expense portion of the bond proceeds without having to worry about your bonds becoming arbitrage bonds. Congress realized
this problem and provided a solution in IRC 148(c)(1) - the reasonable temporary period exception.

## A. Capital Project Financings

IRC 148(c)(1) states that an issuer may invest bond proceeds in higher yielding investments for a "reasonable temporary period" until the proceeds are needed for the project without causing the bonds to be arbitrage bonds. The general rule, in Reg. 1.148-2(e)(2), provides that net sale proceeds and investment proceeds to be used for a capital project may be invested at a higher yield for three years from the issue date. Net sale proceeds are what you have left from the bond issuance after you made a deposit into a reasonably required reserve fund (to be discussed). Investment proceeds are the money you earn on the bond proceeds you invested.

There are conditions. To take advantage of the 3-year reasonable temporary period, you as mayor must reasonably expect to spend most of that money within three years, commit yourself to spending some of the money within six months, and proceed with due diligence on your project. These three requirements are called the expenditure test, the time test, and the due diligence test.

## (1) The Expenditure Test

The expenditure test of Reg. 1.148-2(e)(2) requires that you reasonably expect to spend 85 percent of your net sale proceeds (not including investment earnings) by the end of three years. The expenditure test does not require that you reasonably expect to spend all proceeds within three years.

But suppose you find out, even before your bonds are issued, that construction of the project will take longer than expected because of special soil conditions. Due to this delay, you reasonably expect that it will take four years for you to spend 85 percent of the proceeds that you plan to put in your construction fund. Your bonds may qualify for a special 5-year temporary period. Under Reg. 1.148-2(e)(2)(ii), you qualify for the longer temporary period if both the issuer and a licensed architect or engineer certify that the longer period is necessary. However, don't wait until after your bonds are issued and the bond proceeds are in the temporary fund to attempt to qualify for a 5-year temporary period. You must demonstrate that you need the longer temporary period before the bonds are issued.

## (2) The Time Test

Second, the time test under Reg. 1.148-2(e)(2)(i)(B) requires that you must reasonably expect to incur, within 6 months of the bond issuance, a substantial binding obligation to spend at least 5 percent of the net sale proceeds on the capital project. This
means that, as mayor, you must reasonably expect to sign an agreement with the seller or with a construction contractor within 6 months to spend at least 5 percent of the net sale proceeds.

## (3) The Due Diligence Test

Finally, the due diligence test in Reg. 1.148-2(e)(2)(i)(C) requires that you must reasonably expect to complete the capital project and expend proceeds with due diligence. So, what constitutes due diligence for purposes of the test? The answer is - it depends. Obstacles to completing work on the project such as unexpected environmental requirements are taken into account and won't necessarily prevent you from meeting this third test. Keep in mind the underlying purpose behind the due diligence requirement. It is intended to discourage the issuing of bonds in advance of the project's start date for the purpose of investing the bond proceeds.

## B. Bona Fide Debt Service Funds

Amounts in a bona fide debt service fund qualify for a 13-month temporary period. Reg. 1.148-2(e)(5)(ii). A bona fide debt service fund is a fund that is used primarily to achieve a proper matching of revenues with principal and interest payments within each year, and is depleted at least once a year except for a reasonable carryover amount. For example, Marsh City issues revenue bonds payable from revenues from its electric system. The indenture for this issue requires Marsh City to make monthly deposits into a debt service fund equal to one-sixth of the next semiannual interest payment plus one-twelfth of the next annual principal payment. The amounts in such a bona fide debt service fund generally can be invested without yield restriction, because they are held only temporarily until the date that debt service needs to be paid. Note that a bona fide debt service fund is different from a reasonably required reserve or replacement fund.

## C. Working Capital Financings

A number of special rules apply to "working capital" financings. These are financings to pay for costs other than capital projects (such as operating expenses). Reg. 1.148-2(e)(3) in general provides that working capital financings have a 13-month temporary period.

## D. Other Temporary Periods

A number of other special temporary periods are provided for in the regulations. In case we haven't presented enough for your satisfaction, please see Reg. 1.148-2(e).

## 10. Reasonably Required Reserve Or Replacement Fund Exception

In addition to your construction fund, you may want to set up a "rainy day" fund to pay the principal and interest on the bonds in case your revenues are low in any future year. This is referred to as a debt service reserve fund. This would be like opening a separate account in your bank to pay for one year's mortgage payments on your house in case you have financial difficulty. IRC 148(d)(1) provides an exception to yield restriction for this type of fund. These funds are called reasonably required reserve or replacement funds, or "4-R funds" by those in the know!

IRC 148(d)(1) provides that the total amount that may be placed in a 4-R fund and invested in higher yielding investments is limited to 10 percent of the proceeds of the bond issue, although an issuer may request a ruling from the Service to permit a higher level. Reg. 1.148-2(f) provides that the 10 percent limitation applies to the stated principal amount of the bond issue, unless the issue is sold with more than a de minimis amount of premium or discount (generally 2 percent), in which case issue price is used. For example, if Marsh City issues a bond with a stated principal amount of $\$ 20,000,000$ for an issue price of $\$ 20,000,000$, the issuer could deposit $\$ 2,000,000$ of proceeds into a reasonably required reserve fund. On the other hand, if Marsh City sold the $\$ 20,000,000$ issue at a substantial discount -- say, $\$ 2,000,000$-- the issuer could only deposit $\$ 1,800,000$ ( $\$ 18,000,000 \times 10 \%$ ) into a reasonably required reserve fund. The final regulation further provides that the amount that can be invested at unrestricted yield cannot be more than the lesser of the maximum annual principal and interest requirements on the issue or 125 percent of the average annual principal and interest requirements on the issue. So there are three figures to look at -
(a) $10 \%$ of stated principal
(b) maximum annual principal and interest
(c) $125 \%$ of the average annual principal and interest payment

IRC 148(d)(3) adds an additional limit to 4-R funds. It provides that the amount invested in nonpurpose investments with a yield materially higher than the yield on the bonds may not exceed 150 percent of the debt service on the issue for the bond year. This means that the amount of bond proceeds that you invest at higher yields may not be more than 150 percent of the total principal and interest you pay on the bonds in a single year. This rule does not apply to qualified 501 (c)(3) bonds or governmental bonds.

IRC 148(d)(2) limits the amount of sale proceeds that may be placed in a reserve or replacement fund to 10 percent of the proceeds, regardless of whether those sale proceeds are invested in higher yielding investments. Although an issuer can maintain a larger reserve fund (if funded from its revenues rather than bond proceeds), the yield
restriction limitations apply to any amounts in a 4-R fund above the amounts in the preceding paragraphs.

Unfortunately, after you have carefully avoided having your bonds become arbitrage bonds by making certain that you are not placing more than the required percentage into the $4-\mathrm{R}$ fund, that you are not investing more than the required percentage at unrestricted yield, or exceeding your 150 percent limit, your 4-R fund is still subject to rebate. That's right - all that income you earned from investing the bond proceeds in your 4-R fund at higher yields than the bond yield must be rebated to the Federal government. Of course, your financial advisor needs to consider rebate and the exceptions to rebate.

## 11. Minor Portion Exception

At this point, you have a construction fund to pay project costs and a 4-R fund to hold "rainy day" funds to pay the principal and interest on the bonds. The Code provides for an additional, de minimis exception from yield restriction, called a "minor portion." The "minor portion" in practice primarily serves the purpose of providing issuers with some margin for error. Under IRC 148(e), the lesser of 5 percent or $\$ 100,000$ of proceeds of the issue may be invested at unrestricted yield as a minor portion, in addition to other amounts that may be invested at unrestricted yield, without the bonds becoming arbitrage bonds. The effective result of the "either/or" percentage limitation is that a minor portion will always be $\$ 100,000$ for any issue greater than $\$ 2,000,000$.

## 12. The Mechanics of Yield Restriction

## A. Blended Yield on Investments

The yield restriction rules apply to classes of investments, not to single investments, and are generally measured over the term of the bond issue. For example, if Marsh City needed to restrict the investment of $\$ 2$ million of proceeds to a 7 percent yield, in general it could invest $\$ 1$ million in short term investments having a 6 percent yield and $\$ 1$ million in longer term investments having an 8 percent yield, provided that the overall yield on the investments was no higher than 7 percent. Marsh City has not violated the yield restriction requirements simply by having some higher yielding investments. The regulations provide generally that all investments within a class are treated as a single investment. See Reg. 1.148-5(b)(2).

The regulations generally define the classes of investments broadly as (1) each category of yield-restricted purpose investments and program investments that is subject to a different definition of materially higher, (2) yield-restricted nonpurpose investments, and (3) all other nonpurpose investments. Generally, all investments that need to be yield restricted, whether or not in separate funds or whether held at different times, can be blended. Amounts that can be invested at an unrestricted yield (such as amounts
qualifying for a temporary period) cannot be blended with yield-restricted amounts. Note, however, that the regulations provide that an issuer may waive its rights to invest funds at unrestricted yield. After all, the fund is pretty much gone because of rebate. This means that, for yield-blending purposes, an issuer may be able to expand the class of yield-restricted investments.

## B. Definition of "Materially Higher Yield"

The arbitrage regulations do not require investments to be restricted to exactly the yield on the issue. Because the Code prohibits only investment at a "materially higher" yield, the regulations provide issuers with a margin for error.

## (1) General Rule: $1 / 8$ of 1 Percent

The general rule for most types of proceeds is that "materially higher" means $1 / 8$ of one percentage point. This means that if Marsh City issues bonds having a 7 percent yield and is required to restrict yield on investments, it could invest at a yield of $71 / 8$ percent.

## (2) Stricter Rule for Refunding Escrows and Replacement Proceeds

For amounts that are in a refunding escrow or that are replacement proceeds, materially higher means one-thousandth of one percentage point. A stricter rule applies to these types of investments largely because the opportunities for arbitrage profits are greater than for most other types of investments. For example, amounts in advance refunding escrows may be invested for many years.

## (3) Rule for Program Investments: One and 1/2 Percent

For most program investments, "materially higher" means one and $1 / 2$ percent. In practice, this means that an issuer that makes program investments can charge the borrowers a "spread" of one and $1 / 2$ percent to pay for costs of the program.

## C. Yield-Reduction Payments

The new regulations provide that an issuer may reduce the yield on investments by making a payment to the United States. See Reg. 1.148-5(c). This rule is a significant step towards eliminating the burden on issuers of complying with restrictions that are largely duplicative (yield restriction and rebate). In many instances, an issuer that pays rebate will also meet the yield restriction requirements under this rule. Note, however, that this yield-reduction payment rule is not exactly the same as rebate and that there may be cases where an issuer that pays rebate will also be required to make additional yield-reduction payments. The yield-reduction payment rule only applies to certain types of issues and
investments specified in the regulations. Most notably, the rule cannot be applied to advance refundings. Why would an issuer need to do this? An issuer cannot benefit the seller of an investment by applying more or less than fair market value to control yield. That would be passing on the benefit of tax exempt bond financing to a third party. So, in practice, it may be difficult to yield-restrict.

The yield reduction payment is a new provision in the June 1993 regulations.

## In the Next Subchapter

IRC $148(\mathrm{f})$ is the next subject, although we already have a rough idea of what needs to be rebated and where the check should be sent. We know you, as Mayor of Marsh City, will have to send earnings greater than the yield on the bonds to the Federal government. What we do not know is how the amount to be rebated is calculated. The next subchapter will break the topic into easily digested steps. Before we go on, let's take a moment out and make sure we know where we have been. Yield restriction is the requirement to control earnings on the investment of bond proceeds. There is a menu of exceptions so that the issuer has a number of funds to place bond proceeds in that do not have to be yield restricted. If an issuer uses these "non-yield restricted" funds appropriately, the bonds will not be arbitrage bonds, but the extra profits earned are owed to the Treasury. If too much of the proceeds is placed in a fund, or a temporary fund is left out investing too long, the bonds will be arbitrage bonds. We just said that all extra arbitrage profits have to be rebated. Not quite true. (In tax law, there are no absolute rules - including this one.) Rebate has its own "spending exceptions" which are the subject of the next subchapter.

# 4. AN INTRODUCTION TO REBATE 

by
Cheryl Chasin and Debra Kawecki

## 1. Introduction

Even if an issuer of bonds follows all of the yield restriction rules, the bonds may still be arbitrage bonds. The bonds will be arbitrage bonds unless they satisfy the rebate requirement. In general, in order for an issue to be tax-exempt, any permitted arbitrage profits from investing proceeds must be paid to the United States. IRC 148(f) provides that a bond is a taxable arbitrage bond unless an amount is paid to the United States equal to the sum of (A) the excess of (i) the amount earned on all nonpurpose investments (other than investments attributable to the excess), over (ii) the amount that would have been earned if such nonpurpose investments were invested at a rate equal to the yield on the issue, plus (B) any income attributable to the excess described in (A). This means that if an issue of Marsh City bonds has a yield of 8 percent, and the proceeds of the issue are invested at a yield of 10 percent, the 2 percent investment earnings, plus any additional earnings from investing that 2 percent, must be paid to the United States in order for the bonds to be tax-exempt.

The yield restriction rules and the rebate rules have the same basic purpose. They are designed to remove incentives for the issuance of arbitrage-motivated bonds. Why does the Code establish two sets of rules getting at the same purpose? In other words, why did Congress layer a new set of rules on top of the yield restriction rules? The answer is that Congress determined that the yield restriction rules weren't enough to deter arbitrage abuses. You may further ask why Congress didn't simply make the yield restriction rules tougher. For instance, Congress could have eliminated all exceptions to yield restriction and required all proceeds to be yield restricted at all times. The answer is that yield restriction can be difficult to comply with in practice. In general, issuers must purchase investments at fair market value. The arbitrage rules generally prohibit paying more for an investment than it is worth. Thus issuers can't buy investments with an artificially low yield in order to comply with yield restriction. Although the yield restriction rules apply to all issues, in practice issuers usually don't have to yield restrict because of the availability of exceptions. In a typical non-refunding (or "new money") bond issue, all of the proceeds will qualify for an exception from yield restriction. The Blue Book for the Tax Reform Act of 1986 states that the "rebate requirement is more flexible than -- but substantially equivalent to -- prohibiting the earning of arbitrage profits."

Note that the payment of rebate is a condition to tax-exemption of interest on bonds, not a tax that can be assessed against issuers. If an issuer fails to pay the rebate due on an issue, the result is that the bonds are arbitrage bonds that are taxable from the date of issue.

As a practical matter, issuers have strong incentives to be certain that rebate is paid. If bondholders are taxed, an issuer would likely be sued by the bondholders. Also, the issuer's name could be damaged in the debt markets, so that the issuer could have more difficulty selling its bonds in the future.

In conduit bond issues, where the issuer loans the bond proceeds to a conduit borrower, the bond documents will usually require the conduit borrower to pay rebate. For example, in a typical qualified 501(c)(3) bond, the 501(c)(3) organization will agree in the loan agreement to make all required rebate payments. The conduit issuer typically will have an interest in seeing that the correct amount of rebate is paid.

## 2. Payment of Rebate

IRC 148(f)(3) requires that rebate be paid at least once every five years during the life of the bonds. The last rebate payment is due no later than 60 days after the last bond is redeemed. Except for the final payment, the amount of each required installment payment is 90 percent of the total rebate amount. The regulations provide issuers with flexibility to make early installment payments. 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. The penalty for most bonds is rebated owed plus 50 percent of the rebate amount not paid when required to be paid, plus interest on that amount. The Commissioner may waive all or part of the penalty. The penalty for private activity bonds (other than qualified $501(\mathrm{c})(3)$ bonds) is 100 percent rather than 50 percent. Qualified 501 (c)(3) bonds can take advantage of the $50 \%$ penalty. Interest accrues at the underpayment rate under IRC 6621.

## 3. Exceptions to Rebate

You are still the mayor of Marsh City. The depressing news for you is that after carefully adhering to the permitted exceptions to yield restriction rules, you may not get to keep the money your investments earned. Rebate is owed! What's that you hear? There are exceptions? Well now, you just can't wait to learn.

There are two major types of exceptions to rebate: (1) spending exceptions and (2) small issue exceptions. In addition, the Code and the regulations provide certain additional exceptions to simplify computations.

## A. Spending Exceptions

The idea behind the spending exceptions is that, if bond proceeds are spent fast, there's less opportunity to earn arbitrage profits. In addition, if bond proceeds are spent shortly after the bonds are issued, there's less chance that the bonds were issued early just
to earn an arbitrage profit. As you will recall, the arbitrage restrictions are directed at discouraging issuers from issuing bonds for investment profit.

One important point to keep in mind about all of the spending exceptions is that they usually do not apply to all of the proceeds of an issue. For example, the spending exceptions generally don't apply to amounts held in a reasonably required reserve fund. Even if investment earnings on some proceeds are excepted from rebate, rebate may still be due on investment earnings on the reserve fund.

The 6-month exception and 2-year construction exception are created by statute. The 18 -month exception is created by regulation. Specific rules for all of the spending exceptions are provided in Reg. 1.148-7.

The 6-month Exception. IRC 148(f)(4)(B) provides for an exception from rebate if gross proceeds of an issue are spent within 6 months of the issue date. "Gross proceeds" has a special meaning for this purpose because it excludes certain amounts that are otherwise part of gross proceeds, such as amounts in a reasonably required reserve fund. Qualified 501(c)(3) bonds and governmental bonds get a little special treatment. The lesser of $5 \%$ or $\$ 100,000$ can be held over for another six months if the rest is spent in the first six months.

The 18-month Exception. Reg. 1.148-7(d) provides for an exception from rebate if gross proceeds of an issue are spent within 18 months according to the following schedule measured from the issue date:

1) at least 15 percent within 6 months;
2) at least 60 percent within 12 months;
3) 100 percent within 18 months.

The 18 -month exception uses some rules from the 6-month exception and some rules from the 2 -year construction exception. For example, "gross proceeds" has the same special meaning as for the 6-month exception, so that the exception does not apply to amounts in a reasonably required reserve fund. This means that you only need to spend $85 \%$ as sales proceeds minus the 4 R Fund. On the other hand, like the 2 -year construction exception, the last spending requirement can be satisfied even though the issuer has not spent a 5 percent reasonable retainage on the last spending date.

The 18-month exception requires that all gross proceeds of the issue must meet the requirements of Reg. 1.148-2(e)(2) regarding the initial temporary period for capital projects. This means that the issue must meet the expenditure test, the time test, and the due diligence test of the capital projects temporary period that were discussed in

## Subchapter 3.

The 18-month exception was created in response to comments from issuers that the 6 -month exception is too short and the 2 -year exception too complex and narrow to accommodate many traditional, non-arbitrage motivated bond issues. The 18-month exception is expected to be used frequently by issuers. It applies to most issues covered by the 6-month exception but it's longer so the issuer gets to keep more profit (other than for refunding) and it is simpler to use than the 2-year construction exception.

Unlike the rule for most of the rest of the June 1993 final regulations, issuers cannot elect to apply the 18 -month exception retroactively. It only applies to bonds issued on or after July 1, 1993.

The 2-year Construction Exception. IRC 148(f)(4)(C) provides for an exception to rebate for certain proceeds of a construction issue if the proceeds are spent according to the following schedule measured from the issue date:

1) at least 10 percent within 6 months;
2) at least 45 percent within 12 months;
3) at least 75 percent within 18 months; and
4) 100 percent within 24 months.

The 2-year construction exception only applies to governmental bonds, qualified $501(\mathrm{c})(3)$ bonds, and other private activity bonds that finance property owned by a government unit or 501(c)(3) organization. This means that the exception does not apply to most types of private activity bonds. The exception also requires that the issuer must reasonably expect that at least 75 percent of the "available construction proceeds" of the issue will be spent on construction expenditures. "Available construction proceeds" is another special definition that excludes, among other things, sale proceeds in a reasonably required reserve or replacement fund.

The scope of the exception depends upon the meaning of "construction." The regulations provide that "construction expenditures" generally refer to the cost of making improvements to real property, although certain expenditures with respect to personal property also qualify. More guidance is provided in Reg. 1.148-7(g).

Like the 18 -month exception, the 2 -year construction exception provides that the last spending test will be treated as satisfied even if an issuer holds unspent a "reasonable retainage." The reasonable retainage can be no more than 5 percent of available construction proceeds and must be spent by the end of the third year.

An issuer may elect to apply the exceptions to different portions of an issue as provided in IRC 148(f)(4)(C)(v). For example, a portion of an issue could qualify for the 2-year construction exception and another portion could qualify for the 6-month exception.

An issuer may elect to pay a "penalty in lieu of rebate" under the 2-year exception. See IRC $148(\mathrm{f})(4)(\mathrm{C})(\mathrm{vii})$. The penalty is $11 / 2$ percent of the amount by which an issue fails to meet the spending requirement as of any spending date. This provision was intended to enable issuers to completely avoid the complexities of rebate, but, for a variety of reasons, appears not to have been widely used.

Reg. 1.148-7(b)(4) establishes a de minimis rule for the 18 month and 2 year exceptions. Any failure to satisfy the final spending requirement is disregarded if the issuer exercises due diligence to complete the project and the amount of the failure does not exceed the lesser of $3 \%$ of the total issue price or $\$ 100,000$.

## B. The Small Issuer Exception

Under IRC 148(f)(4)(D) bonds issued to finance governmental activities of small issuers are treated as meeting the rebate requirement and thus don't have to be rebated. To qualify for this exception (1) the issuer must be a governmental unit with general taxing powers and (2) the issuer must reasonably expect that the aggregate face amount of all tax-exempt bonds issued by it during the calendar year will not be more than $\$ 5$ million.

Unlike the spending exceptions, this exception makes the rebate requirement completely inapplicable to an issue. If an issue meets this exception, only the yield restriction rules apply. This means the issuer must use the exceptions to yield restriction, like the $4-R$ fund correctly. If used correctly, all profits can be retained. But if too much money is placed in the 4-R fund, the bond will be an arbitrage bond.

## C. Bona Fide Debt Service Fund Exception

IRC 148(f)(4)(A) provides that the investment earnings on bona fide debt service funds are excluded from rebate in certain cases. Remember that a debt service fund is a fund held to match revenues with payment of principal and interest each year. Payments into and out of the fund are made frequently. For example, payments are often made into a debt service fund monthly and out of the fund semiannually. The issuer of Marsh City Hospital Revenue Bonds may receive payment from the hospital monthly. The issuer owes bondholders interest payments semiannually. A debt service fund is usually held for the entire term of the issue, because principal and interest must be paid each year. This means that the investments in a debt service fund may be difficult to track, but the amount invested is usually not great. Mostly to relieve this administrative burden, Congress
created this exception to rebate. The exception generally applies to all long-term fixed rate bonds with an average maturity of 5 years or more. You have to consider average maturity because one bond issuance will have a number of different bonds with different maturities.

## 4. Computation of Rebate

The general rule for the calculation of rebate is set forth in IRC 148(f)(2) and Reg. 1.148-3. The issuer of the bonds must pay to the Federal government an amount equal to the amount earned on all nonpurpose investments less the amount that would have been earned if the nonpurpose investments were invested at a rate equal to the yield on the bonds. The rebate payment must also include any investment earnings on this excess amount.

For example, assume Marsh City issues bonds for $\$ 10$ million at an 8 percent yield and invests all of the proceeds for a year at a 10 percent yield before spending them. The rebate amount as of that date seems to be simply $\$ 200,000$ (or 2 percent of $\$ 10$ million). Several factors, however, make actual computations more complicated. Typically an issuer will invest the proceeds of an issue in many different investments having different yields. For example, assume Marsh City intends to use the proceeds to construct a hospital. It expects to make frequent payments for the construction. To plan for the expected payout, Marsh City might invest $\$ 1$ million very short, say in a 30-day investment, at a 5 percent yield. "Very short" is a term of art, not referring to the height of the financial advisor. Short bonds have short maturities as opposed to "longs," which are out for a long time. Other amounts might be invested longer, say in a 2 -year investment, at 9 percent yield. A rebate computation must in effect blend together all of these different investments. How can that be done? The answer, as further discussed below, is the "future value" method which is a method of valuing investments of different types according to the same measure.

Steps to Compute Rebate. A rebate computation consists of four basic steps: (1) compute yield on the issue; (2) determine payments for and receipts of nonpurpose investments; (3) determine the future value of payments for and receipts of nonpurpose investments as of the computation date using the yield on the issue; and (4) subtract the future values of all the payments from the future value of all receipts to determine the total rebate amount. If this doesn't sound like "4 basic steps" to you, don't despair. All will be explained.

Computing the yield on an issue is discussed in Subchapter 2. Among other things, this computation requires a determination of issue price, payments of principal and interest, and whether any payments are made for qualified guarantees.

Information regarding the payments for and receipts of nonpurpose investments must be obtained from the issuer. Generally the required information will not all be in the bond transcript, because the bond transcript is put together to show what happened on the closing date, and investments are typically made after the closing date.

All investments are valued at their future value as of the same date. The yield on the issue to determine future value. This is a way to compare amounts paid or received at different times taking into account the time value of money.

Let's look at an example to get a better feel for what this means. 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 year compounded semiannually. 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:

| $\mathbf{2} / \mathbf{1} / 94$ | $\mathbf{\$ 3 , 0 0 0 , 0 0 0}$ |
| :--- | :--- |
| $\mathbf{4} / \mathbf{1} / \mathbf{9 4}$ | $\mathbf{5 , 0 0 0 , 0 0 0}$ |
| $\mathbf{6} / \mathbf{1} / \mathbf{9 4}$ | $\mathbf{1 4 , 0 0 0 , 0 0 0}$ |
| $\mathbf{9} 1 / \mathbf{9 4}$ | $\mathbf{2 0 , 0 0 0 , 0 0 0}$ |
| $\mathbf{7} / \mathbf{1} / 95$ | $\mathbf{1 0 , 0 0 0 , 0 0 0}$ |

The total equals $\$ 52,000,000$. This represents $\$ 49,000,000$ of original proceeds plus $\$ 3,000,000$ of investment proceeds. That high an amount of earnings indicates a high yield on the investment of the sale proceeds. The presence of arbitrage profits is shown by the rebate calculation.

City A selects a bond year ending on January 1, so the first required computation date is 5 years later 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. Before you think about the table, let's take a moment and think about what we are doing. We used a formula in our simple example to calculate future value. It was easy. Does it still work or is rebate too complex? Try the formula $-49,000,000 \times(1+.7 / 2)^{10}$. You use 10 periods because rebate is paid after 5 years or 10 semiannual periods. You divide the yield by 2 because of the semiannual payments. In this case, you know the yield because you are using the yield on the bonds. You don't have to do all the calculations, we can tell you that the formula works.


The amount of $\$ 69,119,339$ is the future value of the $\$ 49,000,000$ you invested, assuming a yield on the investments equal to the yield on the bonds. You need to find out if that figure is greater than or less than the future value of the income you will make. If it is less, rebate is owed. Here the future value of the receipts add up to $\$ 70,000,549$. So, $\$ 70,000,549$ minus $\$ 69,119,339$ equals $\$ 881,210,000$, which after subtracting future value of the computation credits, equals the rebate amount of $\$ 878,664$. This is the computation for the first rebate payment at the end of the first five-year period. At the end of the next five-year period, the method would be the same, but the dollar amounts (the future values) would be different because the money would have been invested longer, earning more interest. It means that your multiplier in the formula would be 20 , for 10 semiannual periods.

It is not necessary to know the actual yields on investments in order to do the rebate computation. The rebate computation is based on payments and receipts, not individual investment yields. In some cases the yield on individual investments may be needed to perform the computation, but only to determine deemed receipts on investments
as of a computation date. You need to do this because there will be payments earned on investments that have not been received by the issuer.

Computation Credits. Reg. 1.148-3(d)(iv) provides for a computation credit of $\$ 1,000$ on the last day of each bond year on which there are proceeds subject to rebate, and on the final maturity date. This amount is treated as a payment for the investment as shown in the computation above.

## 5. Allocation and Accounting Rules

The most difficult part of a rebate computation often is not the calculation of future values, but rather determining payments for and receipts from investments. With the aid of a personal computer, computing of future values is fairly easy. It is sometimes not as easy to determine how bond proceeds were invested and spent. The general allocation and accounting rules in Reg. 1.148-6 deal with this question.

Let's take an example. Suppose an issuer deposits bond proceeds into an investment fund that contains other amounts (general revenue). How does the issuer tell which investments in the fund are associated with the bond proceeds? Even more important, how do you tell? This question is addressed in the special rules for "commingled funds" in Reg. 1.148-6(e).

Assume an issuer wants to construct a $\$ 20$ million project. It has $\$ 10$ million on hand, and issues $\$ 10$ million of tax-exempt bonds. How does the issuer determine which amounts are spent first for the project. This sort of question is addressed in the rules dealing with "allocations of gross proceeds to expenditures" in Reg. 1.148-6(d). Note in particular the rules in Reg. 1.148-6(d)(3) that generally provide that, for working capital expenditures, bond proceeds are treated as being spent last.

Reg. 1.148-6(c) provides that gross proceeds of an issue are not 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. This means, for example, that an issuer cannot pay too much for an investment. This is a common concern in the arbitrage area. Often issuers do not have a real incentive to invest at the highest possible yield, because investment profits above the bond yield generally need to be paid over to the United States. Purchasing an investment for more than it is worth can be a way of transferring arbitrage profit to someone else. This area should be looked at closely on examination to determine if fair market value was paid for investment.

## 5. REIMBURSEMENT BONDS by Aislee Smith and Debra Kawecki

## 1. Background

We have discussed arbitrage and rebate. You now know that, until you have spent your proceeds, you may have to yield restrict the investment of those proceeds and must pay rebate on any arbitrage profits you earn (unless you qualify for one of the exceptions to rebate).

Suppose you want to issue bonds to finance a project, but you don't want to deal with the arbitrage and rebate requirements. If I could just spend the bond proceeds immediately, you tell yourself, I could ignore these requirements because the proceeds would never be invested. But how do you immediately spend the proceeds when the project is going to take some time to build? The answer is, if you have enough money available in your general funds, you can use those funds to pay for the project, and then issue bonds and use the proceeds to "reimburse" yourself for the general funds that you spent. Of course, the "reimbursement" is really just an allocation on your books, because the proceeds don't really go anywhere. You had possession of the funds both before and after the allocation. This is great, you think -- I can spend my bond proceeds and get them out of arbitrage and rebate just by making a bookkeeping entry!

There may be no problem with this transaction. It does not put you in any better position than if you had issued the bonds before building the project and used the proceeds to pay expenses directly. The reimbursement transaction actually may be better for the Federal government because it delays the issuance of the bonds, eliminating the period during which proceeds are invested by the issuer before being spent.

You are sitting in your municipal headquarters thinking about how great reimbursement is. You remember that three years ago you built the new municipal golf course out of money left to the city by a civic minded golfer. The city is a little short on cash right now. If only we'd issued bonds for the golf course, you tell yourself, we would still have all that money that was left to the city. At the time, however, you had no intention to issue bonds to finance the golf course because you had all the money you needed from the donation. What if you issue bonds today to pay yourself back for the cost of the golf course? You will issue the bonds and, through a simple bookkeeping entry, use the proceeds to pay back the municipal coffers. You will have to use some of your money to pay off the bonds, but in the meantime you can invest the bond proceeds at higher than the bond yield and have no arbitrage or rebate requirements because all of the money will be considered spent on the golf course.

The bottom line, you tell yourself, is that all of the new money may be invested at an unrestricted yield and you can keep all of the arbitrage profits for Marsh City. Of course, this deal is too good to be true. Unless a reimbursement is done in compliance with the reimbursement regulations, the bond proceeds will not be treated as having been spent.

## 2. Example Of A Failed Reimbursement Bond

PLR 8923069 provides a very good explanation of a supposed reimbursement that failed and would have resulted in a taxable arbitrage bond. The bonds in this ruling were issued before the effective date of the regulations.

## A. Facts

In this ruling, the county owned and operated a jail facility. The county determined that jail improvements were necessary at a projected cost of $\$ 7,500,000$. It was anticipated that the jail improvements would be financed entirely through federal revenue sharing funds to be received in 1981, 1982 and 1983.

In November 1983, the county began the jail improvements and by December 1986, 96.5 percent of the improvements were completed. The actual incurred costs for the improvements totaled approximately $\$ 29,000,000$. The State paid $\$ 9,000,000$ and $\$ 20,000,000$ was paid from the county's capital improvement fund.

On July 16, 1987, the county began taking the appropriate steps to issue bonds in connection with the jail improvements. The principal amount of the bonds was approximately $\$ 24,000,000, \$ 20,200,000$ of which was to be allocated to "reimburse" the county's capital improvement fund for amounts previously spent on the jail improvements. The bond proceeds supposedly allocated to the reimbursement would immediately be reinvested in high grade government securities, which would yield a rate of return in excess of the yield on the bond issue. This arbitrage profit would help offset the loss of federal revenue sharing and would be used exclusively to fund the capital improvement fund.

The bonds were issued six years after the county had adopted its five-year capital improvement budget and more than six months after the jail project was 96.5 percent complete. Before July 16, 1987, the county never evidenced any actions demonstrating that it planned to issue bonds to "reimburse" the capital improvement fund.

## B. Argument

The county maintained that the $\$ 20,200,000$ of reimbursement proceeds should be considered spent when deposited into the capital improvement fund. Thus, these amounts
should not be treated as either "proceeds" within the meaning IRC 148(a) or "gross proceeds" within the meaning of IRC 148(f). If the Service accepts the idea that the proceeds are spent, then any earnings from their investment are not subject to yield restriction, nor are there any arbitrage profits to be rebated. The Service disagreed with county's analysis and wrote an adverse private letter ruling. The Service maintained that, in cases such as this, proceeds "may be deemed spent only in those circumstances in which the substance of the transaction indicates that the bond proceeds are being used to reimburse prior expenditures."

The Service asserted that the substance of this transaction leads to the conclusion that, at the time the costs were paid, the county intended to finance the $\$ 20,200,000$ of costs paid before the issuance of the bonds from internal and unrestricted funds and a grant received from the State, rather than ultimately by a bond issuance. The bonds issued to reimburse the jail expenditures were designed to earn arbitrage profits for the purposes of supplanting lost federal revenue sharing funds and maintaining the capital improvement fund at a specified level of funding.

## C. Law and Rationale

Former Reg. 1.103-13(f)(1) required that state and local governmental units treat proceeds as spent only if the proceeds were expended on items other than investment property. Conversely, bond proceeds that are expended on the acquisition of investment property are not considered spent.

The primary question is whether the jail improvements were intended to be ultimately financed by bond proceeds or by amounts in the capital improvement fund. Based on statements provided chiefly by the county's financial director, the Service determined that there was no longstanding intention to pay back the jail costs by issuing bonds. The following were the most significant factors:

1) the county's five-year budget, which included the jail improvements, indicated that the entire cost of the jail project was to be paid through federal revenue sharing funds;
2) the $\$ 20,200,000$ of incurred expenses were actually paid with internal funds on hand;
3) the decision to issue bonds was not proposed until approximately 96.5 percent of the total cost of the project had been paid and the project was essentially completed;
4) no evidence was produced demonstrating either that the funds were in the nature of an advance or that there were discussions of possibly
issuing bonds or notes to reimburse the expenditure of the funds at the time of the expenditures; and
5) the finance director clearly expressed a desire to use the reimbursement proceeds (and the arbitrage profits earned) for the purpose of maintaining an adequate balance in the capital fund.

These facts and circumstances indicated that the reimbursement bond issuance was an afterthought. The Service held that the proposed allocation of $\$ 20,200,000$ of bond proceeds to reimburse jail improvement expenditures was an artificial allocation, and therefore the $\$ 20,200,000$ must be treated as unspent bond proceeds invested in nonpurpose investments for purposes of arbitrage and rebate. As unspent proceeds, they must be yield restricted to the yield on the bonds because they do not qualify for a temporary period. If they are not appropriately yield restricted, the interest received by bondholders is not excluded from gross income under IRC 103(a) because the bonds are considered arbitrage bonds within the meaning of IRC 148.

## 3. Reimbursement Bond Requirements

When writing PLR 8923069, the Service focused on whether, at the time the original expenditures were made, the County intended to repay the capital improvement fund with the subsequently issued bonds. This factor of intent is reflected in the final reimbursement regulations published on June 18, 1993. These regulations generally apply to all allocations of proceeds of reimbursement bonds issued after June 30, 1993, although certain transition rules are provided for bonds issued before that date. An earlier set of reimbursement regulations was issued on January 27, 1992, and generally applied to all allocations of proceeds of reimbursement bonds issued after March 2, 1992. Although prior regulations may be relevant to an examination of bonds issued before June 30,1993 , in general we recommend that you focus on the new regulations.

Yet the question remains, how do you issue new bonds to reimburse Marsh City for expenditures made on the golf course 3 years ago? You did not intend to reimburse yourself when you built the golf course. Thus, your real purpose in issuing the bonds is not to pay yourself back for the cost of the golf course, but rather to generate funds that you can invest at an unrestricted yield by treating them as already spent. Can you do it? No, because you generally can not effect a reimbursement without planning.

Under the new regulations with a little foresight, you generally can do a valid reimbursement and treat bond proceeds as spent for purposes of yield restriction and rebate. In brief, it works as follows:

1) Declare your intent to spend money on a project and to pay yourself back with bond proceeds;
2) Spend your own municipal money on the project;
3) Issue reimbursement bonds;
4) Allocate bond proceeds to pay back the expenditure on your books in the time period permitted; and
5) Treat the bond proceeds as "spent," freeing them from any arbitrage or rebate consequences.

Under Reg. 1.150-2(d), three primary requirements are listed for treating proceeds of reimbursement bonds as spent when allocated to the reimbursement. These requirements are: (1) an Official Intent Requirement, (2) a Reimbursement Period Requirement and (3) a Nature of Expenditure Requirement. Before discussing the specific requirements of each rule, we should begin by defining a "reimbursement bond" and a "reimbursement allocation."

## A. Definitions

(1) Reimbursement Bond

A reimbursement bond is a financial instrument the proceeds of which are purportedly used to repay the issuer for an expense that was originally paid before the date the bond was issued. Reg. 1.150-2(c). For example, if the capital expenditures for your municipal golf course were paid on June 1, 1993, and bonds were issued to repay those expenses at any period after June 1, 1993, then the bond issue meets the definition of a reimbursement bond. That doesn't mean that the reimbursement attempt will be successful, it is just a threshold definition.

## (2) Reimbursement Allocation

A reimbursement allocation is a book-keeping entry to evidence the use of bond proceeds to pay back an expenditure. An allocation made within 30 days after the issue date of a reimbursement bond may be treated as made on the issue date. Reg. 1.150-2(c). For example, you issue your reimbursement bonds on June 1, 1994, and allocate the proceeds to reimburse yourself on June 15, 1994. You can treat those proceeds as having been spent on June 1, 1994, so you don't have to worry about applying the arbitrage and rebate rules for those two weeks before the allocation.

## 4. Official Intent Requirement

The official intent requirement is intended to ensure that, on or about the date of payment, the issuer intended to reimburse the expenditure and that the reimbursements are not an artifice to avoid tax-exempt bond requirements imposed by the Code. These rules are the heart of the regulations. They prevent you from issuing reimbursement bonds to allocate proceeds back to the golf course when, in actuality, the purpose of the issue is to invest the bond proceeds without fear of arbitrage or rebate. The official intent rules require the issuer to declare a reasonable intention to reimburse the expenditure with proceeds of a borrowing. This declaration must be made no later than 60 days after the issuer pays the expenditure. If the original expenditure is paid and you wait more than 60 days to declare an intention to issue reimbursement bonds, you will violate timing rule of the official intent requirement. The following specific requirements must be satisfied for a declaration of an intention to reimburse to meet the official intent requirement.

## A. Form of Official Intent

You blew the reimbursement for the golf course. Undaunted, you decide to build a municipal theme park dedicated to famous mayors throughout history. You are ready to begin making expenditures to build the new theme park in Marsh City, and you want to make sure that you will be able to issue bonds to reimburse the city for the expenditures. How do you express this intent? The regulations do not require any particular form for declaring an official intent to reimburse. Reg. 1.150-2(e)(1) provides that an official intent can be made in any reasonable form. Examples of a reasonable form for an official intent include a resolution by the issuer, an action by a person authorized to declare official intent on behalf of the issuer, and specific legislation authorizing the issuance of bonds for a particular project. It should be expressed in a tangible document that would be available upon audit.

## B. Project Description of Official Intent

What must be included in the declaration of official intent other than a statement of your intent to issue bonds to reimburse the expenditures? The declaration of official intent must generally describe the project for which the expenditures were paid and also state the maximum principal amount of bonds expected to be issued for the project. You may describe a project by describing the property being financed, or by describing the program under which the financing is being done. Examples of adequate project descriptions are "highway capital improvement program," "hospital equipment acquisition," and "school building renovation." "Theme park development" should do for your purposes.

Some issuers use "fund accounting" in which many projects may be paid for out of a single fund. These issuers would have difficulty tracing specific amounts in the fund to a particular project. Accordingly, a project description is sufficient if it identifies the fund or account from which the original expenditure was paid, by either giving the name of the fund or describing the functional purpose of the fund. An example of such a description for our theme Park might be "parks and recreation fund--theme park capital improvement program."

Although the regulations require a description of the project, reasonable deviations between a project described in a declaration of official intent and the actual project financed will not invalidate an otherwise valid official intent. However, the actual project financed must be reasonably related in function to the project described in the declaration of official intent. For example, reimbursement of an expenditure for "municipal golf course equipment" is a reasonable deviation from a project described in a declaration of official intent as ""theme park improvements." In contrast, an official intent statement describing theme park improvements will not satisfy the official intent requirement if the amounts to be reimbursed were actually used to construct a municipal library.

## C. Reasonableness of Official Intent

On the date of the declaration, the issuer's expectation that it will reimburse the original expenditure with bond proceeds must be "reasonable." Official intents are not reasonable if they are routinely declared as a matter of course, or are declared in amounts substantially in excess of the amounts expected to be necessary for the project. Thus, you can't make a blanket declaration at the beginning of each year saying that you plan to reimburse for all capital expenditures made during that year.

## 5. Reimbursement Period Requirement

The purpose of the reimbursement period requirement is to ensure that the money paid for the expenditure is not available with respect to the expenditure on a long-term basis. If you had the money to pay the expense when it was incurred in 1992 and you did not reimburse until 2002, one could reasonably conclude that you had the funds available for the project. You paid it and were obviously not suffering for its lack. Therefore, if an expenditure is not reimbursed within a relatively short period of time after its payment or after completion of the project, it is more likely that the money used to pay the expenditure is available with respect to that expenditure on a long-term basis, and the bonds were really issued for the purpose of investing the proceeds.

Under Reg. 1.150-2(d)(2), the reimbursement allocation must be made no later than 18 months after the later of (1) the date of the original expenditure, or (2) the date the project is either placed in service or abandoned. In no event, however, can the
allocation be made more than 3 years after the original expenditure. The regulations also contain special rules that extend the permitted reimbursement period for certain issuers who issue less than $\$ 5,000,000$ of bonds during the year, and for certain issues financing long-term construction projects. Reg. 1.150-2(d)(2)(ii) and (iii).

## 6. Nature of Expenditure Requirement

We have not discussed what kind of expenditures you can reimburse under these rules. Reg. 1.150-2(d)(3) provides that the general rule is that the expenditures to be reimbursed must be either capital expenditures or costs of issuance for a bond. The purpose of this rule is to prevent daily operating costs and similar "working capital" items from being reimbursed. Reg. 1.150-1(b) defines a capital expenditure as any cost that is properly chargeable to capital account under general Federal income tax principles or would be so chargeable with proper election. Whether something is a capital expenditure is determined as of the date of the expenditure, so subsequent changes of law do not effect its status. View this as the anti-paper clip rule. You can not use the reimbursement procedures for normal operating expenditures. But they are perfect for your World of Mayors theme park.

Reg. 1.150-2(d)(3) permits reimbursement for certain types of expenditures in which proceeds are provided to someone else. Thus, an expenditure satisfies the nature of expenditure requirement if it is a grant (as defined in Reg. 1.148-6(d)(4)), a qualified student loan, a qualified mortgage loan, or a qualified veterans' mortgage loan.

## 7. Exceptions to General Operating Rules

Reg. 1.150-2(f) provides issuers with a little flexibility by providing two exceptions to the official intent and the reimbursement period requirements. Reg. $1.150-2(\mathrm{f})$. The first exception is a de minimis exception. If the only amounts being reimbursed are costs of issuance of a bond, or if the amount reimbursed does not exceed the lesser of $\$ 100,000$ or 5 percent of the proceeds of the issue, only the nature of expenditure requirement needs to be satisfied for a reimbursement allocation to qualify under the regulations. The reasonableness and time period requirements drop out.

The second exception is for certain preliminary expenditures that do not exceed 20 percent of the aggregate issue price of the issues that finance or are reasonably expected to finance the project. Preliminary expenditures include architectural, engineering, surveying, soil testing, reimbursement bond issuance, and similar costs that are incurred before commencement of acquisition, construction, or rehabilitation of a project, other than land acquisition, site preparation, and similar costs incident to commencement of construction. For example, you do some soil testing and surveying to evaluate the site for the World of Mayors. You pay these expenses without ever having declared official intent to reimburse. You then reimburse the city with proceeds of bonds issued to finance the
theme park. The fact that the expenses do not satisfy the official intent requirement do not prevent a qualifying reimbursement. Note that the preliminary expenditures must relate to the project being financed with the bonds, so you can't reimburse your preliminary theme park expenditures with the proceeds of a road improvement bond.

## 8. Special Rules on Refundings

Reg. 1.150-2(g) provides special rules for applying the reimbursement regulations to refunding issues. Refundings will be explained in the next Subchapter. If the original expenditure was a payment of principal or interest on an obligation, or was originally paid with proceeds of another obligation, any allocation to reimburse the expenditure should be analyzed under the rules on refunding issues. In addition, if proceeds of a prior issue purportedly were used to reimburse prior expenditures, and the prior issue is refunded, the proceeds of the prior issue are treated as unspent unless the purported reimbursement was a valid expenditure under applicable law on reimbursement expenditures on the issue date of the prior issue. That, hopefully, will make much more sense to you after you read the next Subchapter.

## 9. Anti-abuse Rules

## A. General Rule

The purpose of the anti-abuse rule is to preclude issuers from using a reimbursement allocation to improperly avoid the yield restriction and rebate requirements. A reimbursement works very effectively for this purpose because it would permit an issuer to invest the bond proceeds without yield restrictions by considering the money already spent. The general rule of Reg. 1.150-2(h)(1) provides that a reimbursement allocation is not an expenditure of proceeds of an issue if the allocation employs an abusive arbitrage device under Reg. 1.148-10 to avoid the arbitrage restriction or to avoid the restrictions under sections 142 through 147. Under Reg. 1.148-10, an action is an abusive arbitrage device if it has the effect of (1) enabling the issuer to exploit the difference between tax-exempt and taxable interest rates to obtain a material financial advantage, and (2) overburdening the tax-exempt bond market. The only "good" reimbursement is a reimbursement subject to the regulations which follows the requirement of the regulations. Although Marsh City's Mayoralty prides itself on being creative and innovative, there is very little room for creativity here.

## B. One-year Step Transaction Rule

The regulations also provide a specific anti-abuse rule for reimbursement allocations that result in the creation of "replacement proceeds." Subchapter 7 contains a discussion of replacement proceeds, so you may want to re-read this section after you have read Subchapter 7. Basically, replacement proceeds are amounts that otherwise
would have been used to pay for the expenses financed with a bond issue if the bonds had not been issued. The special anti-abuse rule in the reimbursement regulations provides that a purported reimbursement allocation is invalid if, within 1 year of the allocation, the proceeds for which the allocation was made are used in a way that results in replacement proceeds being created (except in the case of amounts deposited in a bona fide debt service fund). For example, you issue your bonds and allocate the proceeds to reimburse the city for the costs of the World of Mayors. You immediately take those amounts and pledge them as security for another issue of bonds. As you will learn in Subchapter 7, when funds are pledged as security for an issue, they become replacement proceeds of that issue. Since you used those amounts within 1 year of the reimbursement allocation in a way that resulted in the creation of replacement proceeds, the reimbursement allocation is invalid and those amounts are treated as having always been unspent proceeds of the reimbursement bond issue. The consequences of your actions are to create an arbitrage bond, because the reimbursement proceeds that became replacement proceeds have not been yield restricted.

You now know the basics of determining when you can use bond proceeds to reimburse yourself for a prior expenditure and treat the proceeds as spent, but the story is not over. What happens to Marsh City when it has bonds paying an interest rate of $10 \%$ and the general interest rate for bonds drops to $8 \%$. If Marsh City was borrowing now, its debt service expenses could be reduced. Just like when you refinance your house, there are refinancing options available to Marsh City. Subchapter 6 discusses rules on refundings. Without this knowledge, you will not be able to adequately direct Marsh City's financial future.

## 6. REFUNDINGS

## by <br> Debra Kawecki and Marvin Friedlander

## 1. Overview

Refundings involve some of the most complicated issues in the arbitrage area. A large portion of outstanding tax-exempt bonds, however, are refundings. Also, in recent years, because interest rates have been generally declining, there has been a very high volume of refundings of municipal bonds. This chapter focuses on introducing you to some of the most important basic concepts.

As Mayor of Marsh City you have a responsibility to manage the City's debt service. Your motivation is the same as when you manage the debt service on your home. When interest rates drop, homeowners routinely refinance their home mortgages. As mayor, your sensitivity to interest rate fluctuations is even greater because of the size of the debt. Substantial savings can result from taking advantage of small changes in interest rates.

Municipal bond refundings are usually done to save money when interest rates drop. You should be aware, however, that sometimes refundings are done for other reasons.

Unlike homeowners, local governments may have reasons to refinance even when interest rates are rising. You may wish to get out from under covenants that you agreed to in an earlier financing but have now become onerous. For example, in 1980 Marsh City issued $\$ 10,000,000$ in revenue bonds (prior bonds). Proceeds of the prior bonds were used to build an electric generating facility. Revenue from the facility was used to pay debt service on the prior bonds. In order to market the prior bonds, you had to covenant that you would not issue any additional debt unless revenue available for debt service was 2.0 times the highest annual debt service. That was a long time ago and the credit worthiness of the Marsh City electric system has increased. Current investors would only require a ratio of 1.25 . Even though interest rates have risen, you need to refinance so that you can issue new debt for new projects.

How will issuing refunding bonds get you out of this situation? When the refunding bonds are issued, the relationship between the revenue stream and the prior bonds will, in most cases, be severed. The refunding bonds and any future borrowing will not have the 2.0 debt service ratio requirement and your revenue will be able to support more municipal projects. You are no doubt wondering how the severing occurs. In the following discussion, we will explain "defeasance," the term for the severing of the revenue from the debt.

## 2. Definition of Refunding

First, what is a refunding? The answer might seem obvious: a new borrowing to pay off an old borrowing. For example, when you refinance the mortgage on your home, you enter into a new loan to pay off an old loan with a higher interest rate. Debt financing by local governments, however, can be much more complicated than that, and it is not always easy to tell when a bond issue is a refunding. For example, assume that you borrow from a bank to pay one month's interest on your home mortgage. Would you say that your new borrowing is a "refunding" of your home mortgage? Or assume that you borrow from a bank to pay off the mortgage of a good friend. Have you "refunded" your friend's mortgage?

The definition of refunding in the regulations addresses these sorts of questions that arise for tax-exempt bonds. Reg. 1.150-1(d) defines a refunding issue generally as an issue the proceeds of which are used to pay principal, interest, or redemption price on another issue. The definition, however, also contains a number of important exceptions. Perhaps the most important is that an issue is not a refunding issue to the extent that the obligor of one issue is neither the obligor of the other issue nor a related party to the obligor of the other issue. An obligor for this purpose may mean either the issuer or the conduit borrower. It is not a good thing to be considered a refunding bond. The temporary periods are shorter, yield is more restricted, and numerous other requirements apply. The limitation of "obligor to obligor" is a break. If new bonds are issued by one obligor to refund the debt of an unrelated obligor, the issue is treated more liberal, as a new money issue.

## 3. Types of Refundings

After you have determined that you need to refund the prior bonds, there are practical considerations about how you will go about it. There are two broad types of refundings. The terms of the prior bonds will affect whether your refunding will be a current refunding or an advance refunding.

## A. Current Refunding

If you issue refunding bonds that pay off the prior bonds within 90 days, the refunding is considered a current refunding. While this is efficient if interest rates have dropped, it is not always possible. The purchasers of the prior bonds may have required call protection when you marketed the bonds. Call protection is protection for the investor against having bonds paid off early. For example, John and Jane Doe purchase a Marsh City revenue bond with a 10 percent coupon (interest rate). Interest rates fall to 8 percent. As Mayor of Marsh City you want to refinance by issuing current refunding bonds. Can you do it? It depends on whether Joe and Jane's bonds have call protection. If you refunded Joe and Jane's bonds, they would be financially harmed. You will call their
bonds and redeem them. If they had a $\$ 5000$ bond, they would receive $\$ 5000$ from you plus any premium Marsh City had to pay for calling the bonds early. To analyze their financial position, assume that they invest the $\$ 5000$ in a new bond at $8 \%$. You can see that if the bonds are called at this time, the Does will be hurt. To protect themselves, the Does and other investors can buy bonds with call protection. The issuer gives up the right to call the bonds until a specific date. So, if you issue your bonds with call protection, are you sunk, stuck with high interest rate bonds or onerous covenants?

## B. Advance Refunding

This is where the advance refunding bond comes in. As Mayor of Marsh City you get to lock in lower interest rates or get out from under onerous covenants and still honor the call protection on the bonds. When you issue advance refunding bonds, you will have two sets of bonds outstanding. The first set of bonds will remain out until they are called and replaced by the advance refunding bonds.

The proceeds of an advance refunding bond are typically put into a refunding escrow that is invested in high grade U.S. Treasury securities and pledged irrevocably to pay off the prior bonds. Often the proceeds will be invested for many years until the prior bonds are to be called. Because fixed rate municipal bonds are often issued with call protection of 8 to 10 years, it is not uncommon to see refunding escrows invested for 5 or 6 years. In addition, in those less common cases where advance refunding bonds are issued to relieve restrictive bond document covenants and not to take advantage of lower interest rates, the prior bonds may not be redeemed until maturity. This means that in these so-called "low-to-high" advance refundings, the bond proceeds may be invested in the refunding escrow for 20 years or more.

Over the years, restrictions on advance refunding bonds have increased. Why all the attention? With advance refundings a large portion of the bond proceeds is commonly invested for a long time and more than one set of tax-exempt bonds remain outstanding at the same time. This increases the burden on the tax-exempt market. This is unlike most "new money" financing, where the bond proceeds are only invested for a short time before they are spent on a governmental project. There is a lot of room for financial maneuvering with advance refundings. Because the proceeds of the advance refunding bonds are used to invest and grow to pay off the prior bonds, the arbitrage possibilities have gotten a lot of attention. Before the arbitrage restrictions can be understood, it is helpful to understand three different advance refunding methods. The first method is by far the most common.

## (1) Net (or Standard) Defeasance

You have 1988 bonds that are a millstone around your neck. They cannot be called until 1998. Interest rates have dropped from the 1988 coupon rate of $11 \%$ to the 1993 rate
of $4 \%$. You need to do something. You issue new advance refunding bonds. The proceeds of the advance refunding bonds will be used to buy federal securities. The securities are held in an escrow account. The principal plus the interest to be earned will pay off the prior bonds. This refunding escrow account is a pretty sure thing. The quality of the securities is high. The risk that the escrow would not be available to pay off the prior bonds at the call date is considered minimal. So minimal, in fact, that the trustee of the prior bonds will consider that the prior bonds are defeased when the advance refunding bond proceeds are invested in Federal government securities and are placed in the escrow. Usually, the bond documents provide for defeasance if federal securities are put into a refunding escrow to pay off the prior bonds. What does this do for you?

1) The prior bonds are defeased. The revenue stream that was supporting the debt service on the prior bonds is now released. The escrow funded by the advance refunding bonds now supports the debt service on the prior bonds. The revenue stream that supported the debt service on the prior bonds now supports the debt service on the advance refunding bonds. So what, you say?
2) Here's what. If you were doing the refunding to rid Marsh City of onerous covenants on the prior bonds, you have been successful because the defeasance extinguishes the conditions.
3) If you were doing the refunding for debt service savings, you have been successful even though you did not get to take out the higher cost debt right away. For the first 5 years you will have to pay debt service on the prior bonds at the 11 percent rate and you will also have to pay debt service on the advance refunding bonds at 4 percent. But when the prior bonds are redeemed, you will have changed your 11 percent debt into 4 percent. An important point to note is that no real savings are achieved until the 11 percent debt is retired. The amount owed to the holders of the prior bonds will be growing at a rate of 11 percent, but the proceeds in the refunding escrow can only be invested at 4 percent (as will be explained later), so you have to issue a greater amount of advance refunding bonds. In 1993 interest rates for March City bonds are 4 percent. Do you know what they will be in 1998 when you would have been able to do a current refunding? No one else does either, but you have protected Marsh City from rising interest rates.

## (2) Gross (or full cash) Defeasance

The net defeasance we just studied is by far the most common type of refunding. Occasionally, state law or requirements of the trustee of the prior bonds may require that a
gross defeasance be used. In the net defeasance just discussed the bond documents for the prior bonds authorized the trustee to take the "risk" of defeasing the prior bonds based on the investment earnings of the advance refunding proceeds in the refunding escrow. (As a practical matter, there is no real risk because the escrow is invested in federal securities.) In a gross defeasance investment earnings on the refunding escrow are in effect not taken into account.

A simple example can show the difference between a net and a full cash defeasance. Suppose Marsh City wants to advance refund a prior bond that pays $\$ 10$ million in five years and no interest before then (a "zero coupon bond"). If Marsh City does a net defeasance, it needs to issue only about $\$ 6.75$ million of advance refunding bonds. This is because the $\$ 6.75$ million will earn an additional $\$ 3.25$ million if invested for five years at 8 percent. If Marsh City does a gross defeasance, it needs to issue $\$ 10$ million of advance refunding bonds, because it needs to have on hand currently the full amount to pay off the prior bonds, even though that amount isn't needed for 5 years.

The example shows why the regulations contain special rules that disfavor gross defeasance refundings. These refundings require more bonds to be issued than are really needed for the governmental purpose.

## (3) Crossover

The last method to discuss is the crossover. It is similar to the gross refunding because advance refunding bonds in an amount sufficient to fully redeem the prior bonds are issued. In the gross defeasance the prior bonds were defeased, the revenue supporting them switched to supporting the advance refunding bonds, and the earnings on the refunding escrow paid the principal and interest on the prior bonds. In the crossover method, the revenue stream that supported the prior bonds continues to support them, and the earnings on the escrow support the advance refunding bonds. The bottom line is that there is no defeasance. The prior bonds are redeemed whenever they can be called and the new interest rate then replaces the old. This method cannot be used to remove onerous covenants because there is no defeasance of the prior bonds. Crossover refundings are not frequently issued, but are more common than gross defeasance refundings. Again, special rules apply.

## 4. Transferred Proceeds

"Transferred proceeds" is one of the most important concepts in the arbitrage rules dealing with refundings. The transferred proceeds rules are a way of matching up investments and debt when a bond is refunded.

The transferred proceeds rules can best be explained by an example. Assume Marsh City issues a $\$ 10$ million issue in 1992 at a 6 percent yield. By 1994 interest rates
have dropped, so that Marsh City can issue bonds at a 4 percent yield to current refund the 1992 bonds. At the time of the refunding, $\$ 3$ million of proceeds of the 1992 issue remain unspent. When the 1994 issue pays off the 1992 issue the $\$ 3$ million of proceeds of the 1992 issue "transfers" to the 1994 issue. This means that, if the proceeds are subject to yield restriction, the $\$ 3$ million cannot be invested at a yield that is materially higher than 4 percent, rather than 6 percent. This is because the 4 percent debt is now carrying the $\$ 3$ million of proceeds.

This basic transferred proceeds rule is stated in Reg. 1.148-9(b)(1) as follows:

When proceeds of the refunding issue discharge any of the outstanding principal amount of the prior issue, proceeds of the prior issue become transferred proceeds of the refunding issue and cease to be proceeds of the prior issue. The amount of proceeds of the prior issue that becomes transferred proceeds of the refunding issue is an amount equal to the proceeds of the prior issue on the date of that discharge multiplied by a fraction--
(i) The numerator of which is the principal amount of the prior issue discharged with proceeds of the refunding issue on the date of that discharge; and
(ii) The denominator of which is the total outstanding principal amount of the prior issue on the date immediately before the date of that discharge.

The operation of the transferred proceeds rule is easy to understand with a current refunding of all of a prior issue. Municipal bonds, however, are often issued to refund a portion of a prior issue. Then the rules start to become more complicated. For example, assume that in 1994 Marsh City issued only $\$ 3$ million of bonds to current refund $\$ 3$ million of the outstanding $\$ 10$ million principal amount of 1992 bonds. In that case, how much of the $\$ 3$ million of unspent proceeds of the 1992 issue transfers over to the 1994 issue. The answer, under the rule stated above, is $\$ 900,000$. This would be the amount of proceeds of the 1992 issue ( $\$ 3$ million) multiplied by the principal amount of the 1992 issue discharged with proceeds of the 1994 issue ( $\$ 3$ million) divided by the total outstanding principal amount of the 1992 issue before the discharge ( $\$ 10$ million).

Advance refundings raise the most complicated transferred proceeds computations. This is in part because the transfers are delayed, and may occur over a period of many years. The most complex transferred proceeds issues arise in multiple advance refundings. Reg. 1.148-9 sets forth a number of special rules describing the mechanics of transferred proceeds rules. For example, Reg. 1.148-9(c)(1) provides rules for identifying which investments transfer in cases where only a portion of investments transfer on a date. In the
example above, $\$ 900,000$ of $\$ 3$ million of investments transfer. How are the $\$ 900,000$ of investments properly identified? The general rule is that a portion of each investment transfers ratably. If the investments aren't in a refunding escrow, however, the regulations permits individual investments to transfer if they are "representative."

## 5. Yield Restriction of Advance Refunding Issues

Special yield restriction rules apply to advance refundings. In general, proceeds of an advance refunding in a refunding escrow qualify for only a 30-day temporary period. Other special temporary period rules apply. Among other things, materially higher yield for purposes of yield restriction is the yield on the refunding issue plus one-thousandth of one percentage point. Again, this is largely because advance refundings, in which proceeds may be invested for a long period, present special opportunities for arbitrage.

This is not a lot of room for error. As Mayor of Marsh City you are concerned. You feel that it is very difficult to make sure that you are yield restricting to that degree of certainty. You are wondering if there is some way you can easily control the yield on your investments. One answer is that you can purchase United States Treasury Certificates of Indebtedness, Notes, and Bonds of the State and Local Government Series (commonly referred to as SLG's or "slugs"). These are federal securities that can be purchased to match the yield on the bonds.

## 6. Section 149(d): Special Limitations on Advance Refundings

Section $149(\mathrm{~d})$ contains a number of important limitations on advance refundings. Although not an arbitrage provision, this section serves the same purposes as the arbitrage limitations under section 148. This section was added to the Code in the Tax Reform Act of 1986 along with the extension of the rebate requirement and other stricter arbitrage rules.

Most importantly, section 149(d) limits the number of times a bond can be advance refunded. The general rule is that a bond that was issued after 1985 can be refunded only once. Private activity bonds (other than qualified 501(c)(3) bonds) can't be advance refunded at all.

Section $149(\mathrm{~d})$ also provides in general that a bond refunded with debt service savings must be redeemed on its first call date. Section 149(d)(4) provides for a special anti-abuse rule for advance refundings. These provisions reflect Congress's concern that advance refundings have special potential for arbitrage abuse.

# 7. ARBITRAGE ANTI-ABUSE RULES AND REPLACEMENT by <br> Barbara Beckman and Debra Kawecki 

## 1. Anti-abuse Rules

The June 1993 regulations replace many specific anti-abuse rules in the prior regulations with the broad general anti-abuse rules contained in Reg. 1.148-10. Prior regulations attempted to fashion a rule for each type of arbitrage problem uncovered. The new regulations take a different approach. This was a key part of the effort to simplify the arbitrage regulations. These broad anti-abuse rules are particularly important to interpreting the new regulation.

Reg. 1.148-10(a) provides that a bond is an arbitrage bond if an abusive arbitrage device is employed in connection with an issue. An abusive arbitrage device is any action that has the effect of (1) enabling the issuer to exploit the difference between tax-exempt and taxable interest rates to obtain a material financial advantage and (2) overburdening the tax-exempt bond market. An action overburdens the market if it results in issuing more bonds, issuing bonds earlier, or allowing bonds to remain outstanding longer than is otherwise reasonably necessary to accomplish the governmental purposes of the bonds. An important factor bearing on this determination is whether the action would be taken if interest on the bonds were taxable. As mayor of Marsh City you may be called on to justify your financial decisions. Would you have employed that investment plan if your bonds were taxable, or were you playing the spread between municipal and taxable debt.

The new abusive arbitrage device rule is a two-pronged test: it requires both exploitation of the difference between taxable and tax-exempt interest rates and overburdening of the tax-exempt market.

This rule may not reach all possible types of arbitrage abuse because it requires overburdening of the tax-exempt bond market. For example, a device to reduce rebate that would otherwise be due might not necessarily cause more bonds to be issued. Largely for this reason, the regulation contains a separate anti-abuse rule that permits the Commissioner to take action to permit a clear reflection of the economic substance of a transaction.

Reg. 1.148-10(e) provides that, if an issuer enters into a transaction for a principal purpose of obtaining a material financial advantage based on the difference between taxable and tax-exempt interest rates in a manner that is inconsistent with the purposes of section 148, the Commissioner may exercise her discretion to depart from the rules in the regulations as necessary to ensure that the economic substance of the transaction is clearly reflected. For this purpose, the Commissioner may, among other things, recompute yield and rebate. This section may in many cases be more useful to challenge rebate abuses
than the abusive arbitrage device rule.

## 2. Replacement

Another important anti-abuse rule is replacement. Replacement is really the "substance over form" rule for arbitrage that is expressly provided by section 148. Reg. $1.148-1(\mathrm{c})$ provides in general that amounts are replacement proceeds of an issue if the amounts have a sufficiently direct nexus to the issue or to the 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 purpose. For this purpose governmental purposes include the expected use of amounts for the payment of debt service on a particular date. However, the mere availability or preliminary earmarking of amounts for a governmental purpose does not in itself cause amounts to be replacement proceeds.

Marsh City Hospital raises funds for a new wing dedicated to golf related injuries. A number of famously injured golfers donate $\$ 3$ million specifically for the wing. Marsh City issues 3 million dollars in revenue bonds to build the $\$ 3$ million wing. The bond proceeds are appropriately yield restricted and rebated. The donated funds are invested at a materially higher yield than the yield on the bonds. Is something wrong with this picture?

Replacement proceeds include, but are not limited to sinking funds, pledged funds, and other amounts identified in the regulation. A sinking fund includes any fund to the extent reasonably expected to be used to pay principal or interest on an issue. A pledged fund is any amount that is directly or indirectly pledged to pay principal or interest on an issue. Replacement proceeds can also arise if the issuer reasonably expects that the term of an issue is longer than is reasonably necessary.

The basic idea of replacement is that, if funds are closely connected to a bond issue, they may be appropriately treated as proceeds of the issue, because the issuer could have used those amounts to pay for its governmental purpose rather than borrow. The "appropriate treatment" is to follow the yield restriction rules or the bonds will be considered taxable arbitrage bonds.

An example of a sinking fund is helpful to understand replacement. Assume Marsh City needs to borrow $\$ 10$ million to finance its hospital. Ordinarily, Marsh City would like to issue bonds so that it could make approximately level payments in each year, just like you have level payments on your mortgage. If Marsh City issues $\$ 10$ million principal amount of bonds at an interest rate of 8 percent for a term of 10 years, its level principal and interest payments each year would be a little less than $\$ 1.5$ million. Suppose a financial advisor approaches Marsh City with another idea. Rather than issue bonds with level debt service, the financial advisor suggests, issue bonds that pay no principal or
interest until year 10. Marsh City at first objects to this, because it would need to make a very large payment in the tenth year (over $\$ 20$ million). It knows that it couldn't afford to pay that from its budget in one year. The financial advisor, however, suggests that the city can simply make a deposit of $\$ 1.5$ million each year into a special fund (a "sinking fund") that will build up over time and be used to pay off the large $\$ 20$ million payment in the tenth year. But why would Marsh City do this rather than just issue bonds that required level repayments? The answer is that the financial advisor tells you that the amounts in the sinking fund can be invested at a higher yield than the yield on the bonds. If the $\$ 1.5$ million were deposited into the sinking fund each year and invested at say, 10 percent, the issuer could have much more than $\$ 20$ million in the fund by the tenth year.

The problem with this is that bonds are kept outstanding longer than is reasonably necessary. This is because no principle is paid until maturity. In economic substance, Marsh City is borrowing each year to make a deposit into its sinking fund. The replacement rules address this problem by treating the amounts in the sinking fund as proceeds of the bond issue. These amounts would need to be yield restricted to the yield on the issue.

## 8. EXAMINATION SUGGESTIONS <br> by <br> Cheryl Chasin and Debra Kawecki

Following are some additional practical suggestions for things to consider in examining an issue for arbitrage compliance.

1. Watch out for issues with unusual debt service structures. Most bond issues have approximately level annual debt service payments. An issue with dramatically uneven debt service (for example, a debt service "window" of several years) may be an indication that an arbitrage game is being played.
2. Watch out for the existence of "replacement proceeds" and their treatment. Determine whether amounts other than bond proceeds were directly or indirectly pledged to, or expected to be used to pay debt service on, the bond issue or were specifically earmarked to pay for the project financed with bond proceeds. If so, these amounts may be replacement proceeds subject to arbitrage restrictions. Many known prior abuses have attempted to gain an arbitrage benefit by replacement.
3. Watch out for bond issues that "reimburse" for prior expenditures. We have reason to believe that reimbursement was widely used between 1987 and 1990 as a way to avoid the new rebate requirements. Bond proceeds were treated as "spent" on the date of issue, because they were allocated to past expenditures, and were therefore not subject to rebate or other arbitrage rules. Reimbursement is the subject of subchapter 5. Use of bond proceeds for reimbursement is appropriate in many circumstances. Regulatory standards for reimbursement are now set forth in Reg. 1.150-2. For bonds issued before these regulations, the most important standard is that the issuer or conduit borrower have some objective evidence of intent to finance the transaction with the proceeds of tax-exempt bonds before making the original expenditure. If a bond issue is used for reimbursement, ask to review the specific declaration of intent to borrow. A general rule is that the more time that has lapsed between the expenditure and the reimbursement issue, the more suspect is the reimbursement allocation.
4. Verify that all investments were purchased at fair market value. This should be a particular concern for advance refundings because all of the proceeds may be invested for a long period of time. Advance
refundings are the subject of Chapter 6. Purchase of investments at greater than their market value may be the greatest "hidden" arbitrage abuse. In may instances issuers and conduit borrowers do not have true incentives to maximize their investment return, because the yield restriction and rebate rules generally extract all investment profit. Using bond proceeds to purchase investments at more than their market value is a way to transfer the arbitrage benefit to a third party, such as your biggest contributor, your brother-in-law, or the president of your local bank. For example, let's say the local bank offers you certificates of deposit with an interest rate equal to the yield on your bonds. Other financial institutions are offering similar instruments with a materially higher yield. You have no real incentive not to purchase the lower yielding CDs because you cannot keep the income from the higher yielding CDs anyway. The potential arbitrage abuse is obvious as well as the likelihood of private benefit for IRC 501(c)(3) purposes.

The Subchapters you have read provide the foundation for an understanding of the law of tax-exempt bond arbitrage. We hope you found them useful to your task as Mayor and even more useful to your task as agent.

## 9. CURRENT DEVELOPMENTS

by
Debra Kawecki and Marvin Friedlander

## 1. Introduction

The purpose of this Chapter is to update last year's CPE article which reviewed the private letter rulings, revenue rulings, and revenue procedures published by the Assistant Chief Counsel (Financial Institutions and Products). In addition to the new final arbitrage and rebate regulations, the Service published this year two significant revenue procedures that deal with the "use" requirements applicable to tax-exempt bonds. Both of these revenue procedures establish procedural safe harbors. They do not provide substantive guidance for when an issue fails to comply with "use" requirements.

## 2. Change in Use Revenue Procedure

Rev. Proc. 93-17, 1993-1 C.B. 41, sets forth conditions under which changes in the use of proceeds of State or local bonds will not result in violations of the certain specific provisions of IRC 141 through 150. The safe harbors established by the revenue procedure are necessary because of uncertainty regarding the consequences of a change of use of a bond-financed facility.

Where there has been a qualified use for at least five years from the date of issue, there are three different remedial actions that can be taken to preserve the tax-exempt status of the bonds.
(1) The bonds can be defeased and redeemed at the first call date. For example, if the first call date is three years after the change in use, the issuer must fund an escrow within 90 days from the change in use to pay debt service on the bonds until the first call date and to redeem the bonds on that date.
(2) The proceeds from a disposition of a facility can be recycled to a good use.
(3) The change in use can be a qualifying use. For example, a local government can sell a bond financed facility to a 501(c)(3) organization provided that the requirements for qualified 501(c)(3) bonds are met.

An important point to remember is that the second and third alternatives can only be used for governmental bonds and qualified 501(c)(3) bonds. The safe harbors require that the remedial actions be taken within specific time periods. The revenue procedure
indicates that ruling requests will be entertained for change in use questions if the change does not fit into the safe harbors.

Note in particular that the revenue procedure revokes Rev. Rul. 77-416, 1977-2 C.B. 34. This revocation will not be applied retroactively to changes of use occurring before March 8, 1993. That revenue ruling provided that under particular facts and circumstances the sale of a project financed with the proceeds of tax-exempt bonds did not affect the tax-exempt status of the bonds.

Note also that this revenue procedure only deals with changes of use under certain specific Code sections. For example, the procedure does not deal with changes in private payments that cause an issue to meet the private payment test under section 141.

## 3. Service Contract Revenue Procedure

In the Tax Reform Act of 1986 Congress directed the Service to modify Rev. Proc. 82-14 and Rev. Proc. 82-15. Rev. Proc. 93-19, 1993-11 I.R.B. 52, replaces these two procedures. The purpose of the procedure is to set forth safe harbors for when the provision by a nongovernmental person of management or other services under a contract will not cause the proceeds to be used in a trade or business under IRC 141. Unified rules are provided for all types of management and other service contracts.

The revenue procedure implements the Congressional directive and attempts to provide safe harbors that are more responsive to current contracting practices than the safe harbors in the old revenue procedures. Note in particular the revenue procedure's treatment of different types of compensation arrangements. The revenue procedure in general provides that service contracts may have a 5 -year term if at least 50 percent of compensation is based on a periodic fixed fee or if the compensation is based on a capitation fee; a service contract may have a 3-year term if compensation is based on per-unit fees; and a service contract may have a 2 -year term if compensation is based on a percentage of revenue or expense arrangement. In all cases compensation must be reasonable and not be based on net profits. The revenue procedure provides guidance on what methods of compensation will be considered to be based on net profits.

The revenue procedure includes more explicit related party rules. For example, in the case of a management contract for a facility financed with proceeds of a qualified $501(\mathrm{c})(3)$ bond, the manager may not have more than $20 \%$ voting power on the exempt organization's board of directors. In addition, the exempt organization cannot have more than $20 \%$ voting power on the manager's board of directors. The overlapping board members must not include the chief executive officers of the manager or the exempt organization. In addition, the manager and the exempt organization cannot both be members of the same controlled group, as defined in Reg. 1.150-1(f), or related persons, as defined in IRC 144(a)(3).

The revenue procedure expressly states that a management or other service contract that gives a nongovernmental provider a proprietary interest in a facility is not the only situation in which a contract may result in private business use of the facility.

