PRESENT LAW AND ISSUES RELATED TO INFRASTRUCTURE FINANCE

Scheduled for a Public Hearing
Before the
HOUSE COMMITTEE ON WAYS AND MEANS
on October 29, 2008

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of the
JOINT COMMITTEE ON TAXATION

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INTRODUCTION AND SUMMARY

The Committee on Ways and Means has scheduled a public hearing on October 29, 2008 on economic recovery, job creation and investment in America. Among the issues the Committee will consider is the ability of State and local governments to finance infrastructure needs. This document[1] provides a description of present law relating to tax-exempt bonds issued by State and local governments and a description of present law relating to tax-credit bonds, both of which operate to deliver a Federal subsidy to eligible borrowers, albeit by different mechanisms and with different degrees of efficiency. The document also provides background data and an economic discussion of tax-exempt bonds and tax-credit bonds.

Tax-exempt bonds

Interest paid on bonds issued by State and local governments generally is excluded from gross income for Federal income tax purposes. Because the income is excludible, investors generally are willing to accept a lower rate of interest on tax-exempt bonds than they might otherwise accept on a taxable investment. This, in turn, lowers the borrowing cost for the beneficiaries of such financing.

Bonds issued by State and local governments may be classified as either governmental bonds or private activity bonds. Governmental bonds are bonds the proceeds of which are primarily used to finance governmental functions or which are repaid with governmental funds. Private activity bonds are bonds in which the State or local government serves as a conduit providing financing to nongovernmental persons (e.g., private businesses or individuals). The exclusion from income for State and local bonds does not apply to private activity bonds unless the bonds are issued for certain permitted purposes ("qualified private activity bonds") and other Code requirements are met.

Like other activities carried out and paid for by State and local governments, the construction, renovation, and operation of governmental transportation infrastructure projects such as public highways or governmental mass commuting systems (e.g., rail and bus) are eligible for financing with the proceeds of governmental bonds. In addition, certain privately owned and/or operated infrastructure projects may be financed with qualified private activity bonds.

Tax-credit bonds

Tax-credit bonds are not interest-bearing obligations. Rather, the taxpayer holding a tax-credit bond on a credit allowance date is entitled to a tax credit in lieu of an interest payment. In the Code, there are currently tax-credit bonds for qualified zone academies ("QZABs"), tax-credit bonds for capital expenditures relating to certain renewable energy facilities (clean

[1] This document may be cited as follows: Joint Committee on Taxation, *Present Law and Issues Related to Infrastructure Finance* (JCX-83-08**),** October 24, 2008. This document can also be found on our website at www.jct.gov.

renewable energy bonds "CREBs" and "New CREBs"), Gulf tax-credit bonds, Midwest tax-credit bonds, qualified energy conservation bonds, and qualified forestry conservation bonds.

Economic discussion of tax-exempt bonds and tax-credit bonds

Tax-exempt financing provides an implicit Federal subsidy to the borrower (i.e., either the qualified governmental unit or the conduit borrower) but, in practice, some of the subsidy also redounds to the bond investor (the lender). Because interest income on the bonds is excluded from gross income, the bond investor is willing to accept a lower interest rate on the bonds than he might otherwise accept on an identical taxable investment. Thus, the borrower receives an implicit Federal subsidy equal to the difference between the tax-exempt interest rate paid and the taxable rate that otherwise would be paid. In this way, the income exclusion lowers the cost of capital for the State and local governments (or private parties in the case of private activity bonds). The bond investor also receives a Federal subsidy from tax-exempt financing equal to the difference between the tax-exempt interest rate and the after-tax yield on a taxable investment. The bond investor's willingness to purchase tax-exempt bonds also depends on the bond investor's marginal tax rate. The fact that some bond investors receive a tax benefit greater than the reduction in interest cost achieved by the borrower is a source of economic inefficiency in tax-exempt bonds.

Under present law, the subsidy provided by tax-credit bonds is deeper than the subsidy for tax-exempt bonds. This is because (if the bonds are not issued at discount) the issuer of tax-credit bonds pays no interest, only principal. The "interest" is paid by the Federal Government in the form of tax credits. The credit is includible in gross income of the bond investor as if it were an interest payment on the bond, and can be claimed against regular income tax liability and alternative minimum tax liability. With a tax-credit bond, the bond investor's tax saving is independent of his or her marginal tax rate. As a consequence, with a tax-credit bond, the loss in Federal receipts from the tax credit equals the reduction in the tax-credit bond issuer's interest cost.

For most present-law categories of tax-credit bonds, the credit rate on the bonds is determined by the Secretary of the Treasury and is an estimate of the rate that permits issuance of such bonds without discount and interest cost to the qualified issuer. That is, the tax credit generally is chosen to approximate an interest rate subsidy of 100 percent. In the case of new CREBs and qualified energy conservation bonds the tax credit rate is chosen to equal 70 percent of the credit rate that would be provided to the other present-law tax credit bonds.

I. TAX-EXEMPT BONDS

A. Overview

Interest paid on bonds issued by State and local governments generally is excluded from gross income for Federal income tax purposes.[2] Because the income is excludible, investors generally are willing to accept a lower rate of interest on tax-exempt bonds than they might otherwise accept on a taxable investment. This, in turn, lowers the borrowing cost for the beneficiaries of such financing.

Bonds issued by State and local governments may be classified as either governmental bonds or private activity bonds. Governmental bonds are bonds the proceeds of which are primarily used to finance governmental functions or which are repaid with governmental funds. Private activity bonds are bonds in which the State or local government serves as a conduit providing financing to nongovernmental persons (e.g., private businesses or individuals). The exclusion from income for State and local bonds does not apply to private activity bonds, unless the bonds are issued for certain permitted purposes ("qualified private activity bonds") and other Code requirements are met.

Like other activities carried out and paid for by State and local governments, the construction, renovation, and operation of governmental transportation infrastructure projects such as public highways or governmental mass commuting systems (e.g., rail and bus) are eligible for financing with the proceeds of governmental bonds. In addition, certain privately owned and/or operated infrastructure projects may be financed with qualified private activity bonds.

[2] In order to be tax-exempt, such bonds must also satisfy any applicable State and local laws (*e.g.*, because some States prohibit the issuance of public debt with the full faith and credit of the issuer for private purposes many private activity bonds are not general obligations of the issuer but revenue bonds).

B. Tax-Exempt Governmental Bonds and Private Activity Bonds

In general

Present law does not limit the types of facilities that can be financed with governmental bonds. Thus, State and local governments can issue tax-exempt, governmental bonds to finance a broad range of transportation infrastructure projects, including highways, railways, airports, etc. However, while the types of projects eligible for governmental bond financing are not circumscribed, present law imposes restrictions on the parties that may benefit from such financing. For example, present law limits the amount of governmental bond proceeds that can be used by nongovernmental persons. Use of bond proceeds by nongovernmental persons in excess of amounts permitted by present law may result in such bonds being treated as taxable private activity bonds, rather than tax-exempt governmental bonds. The Code[3] does not expressly define a "governmental bond." Instead it defines a private activity bond as any bond that satisfies (1) the private business use test and the private security or payment test ("the private business test"); or (2) "the private loan financing test."[4] Generally, private activity bonds are taxable unless issued as qualified private activity bonds.

Generally, governmental bonds are not subject to restrictions that apply to bonds used to finance private activities. For example, governmental bonds are not subject to issuance cost, maturity, and annual volume limitations that generally apply to qualified private activity bonds.

Private business test

Under the private business test, a bond is a private activity bond if it is part of an issue in which:

1. More than 10 percent of the proceeds of the issue (including use of the bond-financed property) are to be used in the trade or business of any person other than a governmental unit ("private business use"); and

2. More than 10 percent of the payment of principal or interest on the issue is, directly or indirectly, secured by (a) property used or to be used for a private business use or (b) to be derived from payments in respect of property, or borrowed money, used or to be used for a private business use ("private payment test").[5]

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[3] Unless otherwise stated, all section references are to the Internal Revenue Code of 1986, as amended (the "Code") and all regulation references are to the Treasury Regulations promulgated thereunder.

[4] Sec. 141.

[5] The 10 percent private business test is reduced to five percent in the case of private business uses (and payments with respect to such uses) that are unrelated to any governmental use being financed by the issue.

A bond is not a private activity bond unless both parts of the private business test (i.e., the private business use test and the private payment test) are met. Thus, a facility that is 100 percent privately used does not cause the bonds financing such facility to be private activity bonds if the bonds are not secured by or paid with private payments. For example, land improvements that benefit a privately-owned factory may be financed with governmental bonds if the debt service on such bonds is not paid by the factory owner or other private parties.

A contract between a private management or other service company and a governmental unit to operate bond-financed governmental facilities may result in private business use depending on the terms of the contract.[6] In general, a management contract gives rise to private business use if the compensation under the contract is based on net profits. For example, a management contract with respect to a commuter rail facility that compensates the management company based on the profits of such facility would result in private use. Contracts for service incidental to the facility's primary functions, such as janitorial, office equipment repair and similar services, are not considered management contracts.

For purposes of the private payment test, both direct and indirect payments made by any private person treated as using the financed property are taken into account. Payments by a person for the use of proceeds generally do not include payments for ordinary and necessary expenses (within the meaning of section 162) attributable to the operation and maintenance of financed property.[7]

Private loan financing test

A bond issue satisfies the private loan financing test if proceeds exceeding the lesser of $5 million or five percent of such proceeds are used directly or indirectly to finance loans to one or more nongovernmental persons. Private loans include both business and other (e.g., personal) uses and payments by private persons; however, in the case of business uses and payments, all private loans also constitute private business uses and payments subject to the private business test.

[6] Treas. Reg. sec. 1.141-3(b)(4).

[7] Treas. Reg. sec. 1.141-4(c)(3).

C. Qualified Private Activity Bonds

In general

Qualified private activity bonds are tax-exempt bonds issued to provide financing for specified privately used facilities. The definition of a qualified private activity bond includes an exempt facility bond, or qualified mortgage, veterans' mortgage, small issue, redevelopment, 501(c)(3), or student loan bond.[8]

Exempt facility bonds for infrastructure

To qualify as an exempt facility bond, 95 percent of the net proceeds must be used to finance an eligible facility.[9] Business facilities eligible for this financing include transportation (airports, ports, local mass commuting, high-speed intercity rail facilities, and qualified highway or surface freight transfer facilities) and privately owned and/or operated public works facilities.

Airports

Exempt facility bonds may be issued to finance airports. Exempt facility bonds for airports are not subject to the State volume cap. However, all tax-exempt-bond-financed airport property must be governmentally owned. Property eligible for this financing includes land, terminals, runways, public parking facilities, and related equipment. Airplanes are not eligible for tax-exempt financing. Additionally, certain real property facilities (and related equipment) are excluded from this financing.

Port facilities

Exempt-facility bonds may be issued to finance port ("dock and wharf") facilities and related storage and training facilities. Facilities that are specifically ineligible for financing with airport bonds may not be financed with port bonds. Further, ships and other vessels are not eligible for private activity tax-exempt bond financing. All property financed with these bonds must be governmentally owned. Exempt facility bonds issued for ports are not subject to the State volume cap described below.

Mass commuting facilities

Exempt facility bond financing for mass commuting facilities is subject to similar restrictions as those which apply to such bonds for airports and ports. All property financed with these bonds must be governmentally owned. Further, "rolling stock" (e.g., buses and rail cars) are not eligible for financing with exempt facility bonds.

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[8] Sec. 141(e).

[9] Sec. 142(a).

High-speed intercity rail facilities

The definition of an exempt facility bond includes bonds issued to finance high-speed intercity rail facilities.[10] A facility qualifies as a high-speed intercity rail facility if it is a facility (other than rolling stock) for fixed guideway rail transportation of passengers and their baggage between metropolitan statistical areas.[11] The facilities must use vehicles that are reasonably expected to operate at speeds in excess of 150 miles per hour between scheduled stops, and the facilities must be made available to members of the general public as passengers.

Unlike other bond-financed transportation facilities, high-speed intercity rail facilities may be privately owned. However, if the bonds are to be issued for a nongovernmental owner of the facility, such owner must irrevocably elect not to claim depreciation or credits with respect to the property financed by the net proceeds of the issue.[12]

The Code imposes a special redemption requirement for these types of bonds. Any proceeds not used within three years of the date of issuance of the bonds must be used within the following six months to redeem such bonds.[13]

Seventy-five percent of the principal amount of the bonds issued for high-speed rail facilities is exempt from the volume limit.[14] If all the property to be financed by the net proceeds of the issue is to be owned by a governmental unit, then such bonds are completely exempt from the volume limit.

Qualified highway or surface freight transfer facility bonds

Present law authorizes the issuance pf tax-exempt private activity bonds to finance qualified highway or surface freight transfer facilities. A qualified highway facility or surface freight transfer facility is any surface transportation or international bridge or tunnel project (for which an international entity authorized under Federal or State law is responsible) which receives Federal assistance under title 23 of the United States Code or any facility for the transfer of freight from truck to rail or rail to truck which receives Federal assistance under title 23 or title 49 of the United States Code.

Qualified highway or surface freight transfer facility bonds are not subject to the State volume limitations. Rather, the Secretary of Transportation is authorized to allocate a total of

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[10] Sec. 142(a)(11) and sec. 142(i).

[11] A metropolitan statistical area for this purpose is defined by reference to section 143(k)(2)(B). Under that provision, the term metropolitan statistical area includes the area defined as such by the Secretary of Commerce.

[12] Sec. 142(i)(2).

[13] Sec. 142(i)(3).

[14] Sec. 146(g)(4).

$15 billion of issuance authority to qualified highway or surface freight transfer facilities in such manner as the Secretary determines appropriate.[15]

Similar to the requirement for high-speed intercity rail facilities, the Code imposes a special redemption requirement for qualified highway or surface freight transfer facility bonds. Under present law, the proceeds of qualified highway or surface freight transfer facility bonds must be spent on qualified projects within five years from the date of issuance of such bonds. Proceeds that remain unspent after five years must be used to redeem outstanding bonds.

Sewage facilities

The Code permits the issuance of exempt facility bonds for sewage facilities. This includes property used for certain levels of treatment of wastewater and property used for collection, storage, use, processing, or final disposal of wastewater, sewage, septage.

Water facilities

The Code permits the issuance of exempt facility bonds for water facilities. This provision covers facilities furnishing water that is made available to the general public, including electric utility, industrial, agricultural, or other commercial users. Such facilities must be operated by a governmental unit or the rates for sale of water must be approved by a governmental unit.

Facilities for the local furnishing of electric energy or gas

The Code permits the issuance of exempt facility bonds for facilities for the local furnishing of electric energy or gas. This generally includes a facility furnishing electric energy

[15] As of July 14, 2008, the Department of Transportation had made the following allocations of the $15 billion in qualified highway or surface freight transfer facility bond authority:

Project	Allocation (millions of dollars)
Port of Miami Tunnel, Consortium Miami Access Tunnel	980.0
Missouri DOT Safe and Sound Bridge Improvement Project	700.0
Knik Arm Crossing, Alaska	600.0
Virginia I-495 Capital Beltway HOT Lanes	589.0
Texas Department of Transportation Interstate Highway 635 (LBJ Freeway)	288.0
Pennsylvania Turnpike Capital Improvements	2,000.0
Ambassador Bridge Gateway Project - Phase I (Detroit, Michigan -Windsor, Ontario, Canada	212.6
Total approved allocations as of 7/14/08	5,369.6

Source: Federal Highway Administration

or gas serving an area not to exceed two contiguous counties or a city and one contiguous county.

Local district heating or cooling facilities

The Code permits the issuance of exempt facility bonds for local district heating and cooling facilities. Such a facility provides hot water, chilled water, or steam to two or more users for residential, commercial, or industrial heating or cooling, or process steam.

Hazardous Waste Disposal Facilities

Facilities for the incineration or permanent entombment of hazardous waste are permitted to be financed by exempt facility bonds if certain requirements are met.

Other qualified private activity bonds

Other exempt facility bonds

In addition to exempt facility bonds for transportation and privately owned and/or operated public works facilities discussed above, tax-exempt exempt facility bonds may be used for privately-owned and/or operated residential rental housing, qualified public educational facilities, and qualified green building and sustainable design projects. Environmental enhancements of hydro-electric generating facilities also may qualify for exempt facility bonds.

Qualified mortgage bonds

Owner-occupied housing may be financed with qualified mortgage bonds. Qualified mortgage bonds are bonds issued to make mortgage loans to qualified mortgagors for the purchase, improvement, or rehabilitation of owner-occupied residences. The Code imposes several limitations on qualified mortgage bonds, including income limitations for homebuyers and purchase price limitations for the home financed with bond proceeds. In addition to these limitations, qualified mortgage bonds generally cannot be used to finance a mortgage for a homebuyer who had an ownership interest in a principal residence in the three years preceding the execution of the mortgage (the "first-time homebuyer" requirement). Special income and purchase price limitations and first-time homebuyer waivers apply to targeted area residences and in certain disaster areas. Also, the Code provides an exception from the first-time homebuyer requirement for certain veterans provided that the veteran has not previously received financing under any State's qualified mortgage bond program.

Qualified mortgage bonds also may be used to finance qualified home-improvement loans. Qualified home-improvement loans are defined as loans to finance alterations, repairs, and improvements on an existing residence, but only if such alterations, repairs, and improvements substantially protect or improve the basic livability or energy efficiency of the property. Generally, qualified home-improvement loans may not exceed $15,000, however special rules apply for certain disaster areas, including increasing the loan maximum.

Qualified veterans' mortgage bonds

Qualified veterans' mortgage bonds are bonds the proceeds of which are used to finance the purchase, or qualifying rehabilitation or improvement, of single-family, owner-occupied residences of qualified veterans located within the jurisdiction of the issuer of the bonds. A qualified veterans' mortgage bond may be issued only by those States that issued such bonds before June 22, 1984. These States are Alaska, California, Oregon, Texas, and Wisconsin. Annual issuance of qualified veterans' mortgage bonds is subject to a separate State limit, but not to the unified State volume cap applicable to most other private activity bonds.

Persons receiving qualified veterans' mortgage bond loans must be veterans who served on active duty, and who applied for the financing before the date 25 years after the last date on which the borrower left active service. There are no restrictions on purchase price or borrower income, and no first-time homebuyer requirement for qualified veterans' mortgage bond loans.

Student loan bonds

Qualified student loan bonds are bonds issued to finance eligible student loans. Interest on qualified student loan bonds is tax-exempt. Eligible student loans include Federally guaranteed loans under the Higher Education Act of 1965 and other loans financed as part of a program of general application approved by the State.[16]

Small issue bonds

Qualified small issue bonds are tax-exempt bonds issued by State and local governments to finance private business manufacturing facilities (including certain directly related and ancillary facilities) or the acquisition of land and equipment by certain farmers. In both instances, these bonds are subject to limits on the amount of financing that may be provided, both for a single borrowing and in the aggregate.

Redevelopment bonds

Qualified redevelopment bonds are bonds issued as part of an issue 95-percent or more of the net proceeds of which is to be used for one or more redevelopment purposes in a designated "blighted area." A blighted area is an area designated as such by the local governing body of such area based on the substantial presence of factors such as excessive vacant, abandoned or vacant buildings, substandard structures, vacancies, and delinquencies in payment of real property taxes.

Qualified 501(c)(3) bonds

State and local governments may issue tax-exempt bonds to finance the activities of charitable organizations described in section 501(c)(3) ("qualified 501(c)(3) bonds"). The beneficiaries of this type of financing frequently are private, nonprofit hospitals and private,

[16] Sec. 144(b)(1).

nonprofit colleges and universities. Both capital expenditures and limited working capital expenditures of charitable organizations described in section 501(c)(3) of the Code may be financed with qualified 501(c)(3) bonds.

Qualified 501(c)(3) bonds are not subject to the State volume cap.

New York Liberty Zone Bonds

Present law permits an aggregate of $8 billion in exempt facility bonds for the purpose of financing the construction and rehabilitation of nonresidential real property and residential rental real property in a designated "Liberty Zone" of New York City ("Liberty Zone Bonds"). Liberty Zone Bonds must be issued before January 1, 2010, and are not subject to the State volume cap.

Gulf Opportunity Zone Bonds

Present law permits the issuance of qualified private activity bonds to finance the construction and rehabilitation of residential and nonresidential property located in the Gulf Opportunity Zone ("Gulf Opportunity Zone Bonds").[17] Gulf Opportunity Zone Bonds must be issued before January 1, 2011.

Midwestern disaster area bonds

Present law provides tax-exempt bond financing like Gulf Opportunity Zone Bonds with certain modifications to the Midwestern disaster area.[18] Specifically, it allows the issuance of qualified private activity bonds ("qualified Midwestern disaster area bonds") to finance the construction and rehabilitation of certain residential and nonresidential property located in the Midwestern disaster area. Qualified Midwestern disaster area bonds must be issued before January 1, 2013. Other tax-exempt bond rules that apply to Gulf Opportunity Zone Bonds generally apply to qualified Midwestern disaster area bonds.

[17] The "Gulf Opportunity Zone" is defined as that portion of the Hurricane Katrina Disaster Area determined by the President to warrant individual or individual and public assistance from the Federal Government under the Robert T. Stafford Disaster Relief and Emergency Assistance Act by reason of Hurricane Katrina.

[18] The "Midwestern disaster area" is defined as an area with respect to which a major disaster was declared by the President on or after May 20, 2008, and before August 1, 2008, under section 401 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act ("Stafford Act") by reason of severe storms, tornados, or flooding occurring in any of the States of Arkansas, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, and Wisconsin, and determined by the President to warrant individual or individual and public assistance from the Federal government under such Act with respect to damages attributable to such severe storms, tornados, or flooding. For certain provisions, areas eligible for only public assistance are included in the definition of Midwestern disaster area.

Hurricane Ike disaster area bonds

Present law provides tax-exempt bond financing like Gulf Opportunity Zone Bonds with certain modifications to Louisiana, and Texas, (or any political subdivisions thereof). Specifically, it allows the issuance of qualified private activity bonds ("Hurricane Ike disaster area bonds") to finance the construction and rehabilitation of certain residential and nonresidential property located in the Hurricane Ike disaster area.[19] Hurricane Ike disaster area bonds must be issued before January 1, 2013. Other tax-exempt bond rules that apply to Gulf Opportunity Zone Bonds generally apply to Hurricane Ike disaster bonds.

Tax-exempt enterprise zone facility bonds

Enterprise zone facility bonds are issued to finance "enterprise zone facilities" located in "enterprise communities" or "empowerment zones" if the principal users of such facilities are "qualified enterprise zone businesses." Ninety-five percent or more of the net proceeds of the bonds must be used to provide an enterprise zone facility. An enterprise zone facility is defined as any qualified zone property the principal user of which is an "enterprise zone business," and any land that is functionally related and subordinate to such property.[20] Enterprise zone businesses are defined as certain partnerships or corporations conducting a qualified business in, and employing residents of, an empowerment zone.[21]

[19] The "Hurricane Ike disaster area" is defined as an area in the State of Texas or Louisiana with respect to which a major disaster has been declared by the President on September 13, 2008, under section 401 of the Stafford Act by reason of Hurricane Ike, and determined by the President to warrant individual or individual and public assistance from the Federal government under such Act with respect to damages attributable to Hurricane Ike.

[20] Sec. 1394(b).

[21] Sec. 1397C.

Additional qualified private activity bonds requirements

Volume cap

Unlike governmental bonds, the aggregate volume of most qualified private activity bonds is restricted by the annual volume cap imposed on issuers within each State.[22] As discussed above, the volume cap rules reflect Congress' intent to control the total volume of tax-exempt bonds issued for private activities. For calendar year 2008, the State volume cap, which is indexed for inflation, equals $85 per resident of the State, or $262.09 million, if greater.

Exceptions from the volume cap are provided for bonds for certain governmentally owned facilities (e.g., airports, ports, high-speed intercity rail, and solid waste disposal) and bonds issued to finance the activities of certain charitable organizations. In addition, bonds which are subject to separate local, State, or national volume limits are not subject to the unified volume cap (e.g., public/private educational facility bonds, enterprise zone facility bonds, qualified green building bonds, and qualified highway or surface freight transfer facility bonds).

If an issuer's volume cap for a calendar year exceeds the aggregate amount of tax-exempt private activity bonds issued during the year, the authority may elect to treat all (or any portion) of the excess as a carryforward for one or more specified "carryforward purposes." The issuing authority is required to identify the purpose for which the carryforward is elected and specify the portion of the carryforward which is to be used for that purpose. The Code defines "carryforward purpose" to mean one of four purposes: issuing exempt facility bonds; issuing qualified mortgage bonds or mortgage credit certificates; issuing qualified student loan bonds; and issuing qualified redevelopment bonds.[23] Carryforwards of unused volume cap are valid for three years.

Maturity limitations

Most qualified private activity bonds are subject to a term to maturity rule which limits the period of time such bonds may remain outstanding. Generally, this rule provides that the average maturity of a qualified private activity bond cannot exceed 120 percent of the economic life of the property being financed.[24] The term to maturity rule does not apply to qualified mortgage or student loan bonds.[25]

[22] Sec. 146.

[23] Sec. 146(f)(5).

[24] Sec. 147(b).

[25] Sec. 147(h).

Issuance costs

Generally, the amount of costs of issuance (e.g., bond counsel and underwriter fees) that may be paid from qualified private activity bond proceeds is limited to two percent. In addition, amounts paid for costs of issuance are not treated as spent for the exempt purpose of the borrowing (i.e., are not "good costs").

Public approval

To be a qualified private activity bond, a bond must satisfy a public approval requirement including providing reasonable public notice for a hearing. Regardless of State and local law, reasonable public notice must include notice "published in one or more newspapers of general circulation available to residents of that locality or if announced by radio or television broadcast to those residents."[26]

Prohibited facilities

Qualified private activity bonds generally are subject to restrictions on the use of proceeds for the acquisition of land and existing property, use of proceeds to finance certain specified facilities (e.g., airplanes, skyboxes, other luxury boxes, health club facilities, gambling facilities, and liquor stores), and use of proceeds to pay costs of issuance. Small-issue and redevelopment bonds also are subject to additional restrictions on the use of proceeds for certain facilities (e.g., golf courses and massage parlors).

[26] Treas. Reg. sec. 5f.103-2(g)(3).

D. Rules Applicable to All Tax-Exempt Bonds

Arbitrage restrictions

To prevent the issuance of Federally subsidized tax-exempt bonds that do not directly support governmental projects or specified activities, the tax exemption for State and local bonds does not apply to any arbitrage bond.[27] An arbitrage bond is defined as any bond that is part of an issue if any proceeds of the issue are reasonably expected to be used (or intentionally are used) to acquire higher yielding investments or to replace funds that are used to acquire higher yielding investments.[28] In general, arbitrage profits may be earned only during specified periods (e.g., defined "temporary periods") before funds are needed for the purpose of the borrowing or on specified types of investments (e.g., "reasonably required reserve or replacement funds"). Subject to limited exceptions, investment profits that are earned during these periods or on such investments must be rebated to the Federal government ("arbitrage rebate").

Advance refundings

A refunding bond is defined as any bond used to pay principal, interest, or redemption price on a prior bond issue (the refunded bond). The Code contains different rules for "current" as opposed to advance refunding bonds. A current refunding occurs when the refunded bond is redeemed within 90 days of issuance of the refunding bonds. Conversely, a bond is classified as an advance refunding if it is issued more than 90 days before the redemption of the refunded bond (thus, two or more issues of tax-exempt bonds are outstanding simultaneously).[29] An advance refunding often takes place when interest rates fall and the issuer, in an effort to save money, seeks to redeem an existing issue with new funds borrowed at a lower rate. If the existing issue has "call protection," that is, provisions of the bonds that prohibit redemption by the issuer for a period of years in order to protect the holders, the issuer cannot immediately redeem the existing bond issue with the proceeds of the advance refunding bond issue. For that reason, proceeds of advance refunding bonds are generally invested in an escrow account and held until a future date when the refunded bond may be redeemed.

Although there is no statutory limitation on the number of times that tax-exempt bonds may be currently refunded, the Code limits advance refundings. Generally, governmental bonds

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[27] Secs. 103(a) and (b)(2).

[28] For example, a tax-exempt issuer might be able to borrow money at six percent and invest the funds in taxable securities that yield eight percent. The tax exempt issuer would earn a profit of two percent. This two-percent profit is, in effect, a subsidy from the Federal government to the tax-exempt issuer. The arbitrage restrictions are necessary to control this subsidy.

[29] Sec. 149(d)(5).

and qualified 501(c)(3) bonds may be advance refunded one time.[30] Private activity bonds, other than qualified 501(c)(3) bonds, may not be advance refunded at all.[31]

Federal guarantees

Generally, interest on State and local bonds that are Federally guaranteed does not qualify for tax exemption. A bond is Federally guaranteed if: (1) the payment of principal or interest with respect to such bond is guaranteed (in whole or in part) by the United States (or any agency or instrumentality thereof); (2) such bond is issued as part of an issue and five percent of more of the proceeds of such issue is to be (a) used in making loans the payment of principal or interest with respect to which is guaranteed (in whole or in part) by the United States (or any agency or instrumentality thereof), or (b) invested directly or indirectly in federally insured deposits or accounts; or (3) the payment of principal or interest on such bond is otherwise indirectly guaranteed (in whole or in part) by the United States (or any agency or instrumentality thereof).

The Federal guarantee restriction was enacted in 1984 with certain exceptions for certain guarantee programs in existence at that time.[32] In response to current market instability, the Department of the Treasury is making available certain funds from its Exchange Stabilization Fund on a temporary basis to certain money market funds to enable the funds to maintain stable $1.00 per share net asset values. Notice 2008-81 provides that the program will not result in any violations of the restrictions against Federal guarantees of tax-exempt bonds with respect to the tax-exempt bond assets of tax-exempt money market funds, as defined by the notice.

Information returns

An issuer of bonds must file with the IRS certain information in order for the interest on such bond to be tax-exempt.[33] Generally, this information return is required to be filed no later

[30] Sec. 149(d)(3). Bonds issued before 1986 and pursuant to certain transition rules contained in the Tax Reform Act of 1986 may be advance refunded more than one time in certain cases.

[31] Sec. 149(d)(2). Special rules apply for certain advance refundings in the New York Liberty Zone and the Gulf Opportunity Zone.

[32] The exceptions include guarantees by: the Federal Housing Administration, the Department of Veterans' Affairs, the Federal National Mortgage Association, the Federal Home Loan Mortgage Association, the Government National Mortgage Association; the Student Loan Marketing Association; and the Bonneville Power Authority pursuant to the Northwest Power Act (16 U.S.C. sec. 839d). The exception also includes guarantees for certain housing programs. These are: (a) private activity bonds for a qualified residential rental project or a housing program obligation under section 11(b) of the United States Housing Act of 1937; (b) a qualified mortgage bond; or (c) a qualified veterans' mortgage bond. In addition, if certain requirements are met, the Federal guarantee prohibition does not apply to any guarantee by a Federal home loan bank made in connection with the original issuance of a bond during the period July 30, 2008 through December 31, 2010.

[33] Sec. 149(e).

the 15th day of the second month after the close of the calendar quarter in which the bonds were issued.

II. TAX-CREDIT BONDS

In general

Tax-credit bonds are not interest-bearing obligations. Rather, the taxpayer holding a tax-credit bond on a credit allowance date is entitled to a tax credit. In the Code, there are currently tax-credit bonds for qualified zone academies ("QZABs"), tax-credit bonds for capital expenditures relating to certain renewable energy facilities (clean renewable energy bonds, "CREBs" and "New CREBs"), Gulf Tax-credit Bonds, Midwest Tax-credit Bonds, qualified energy conservation bonds, and qualified forestry conservation bonds.

Types of tax-credit bonds

Qualified Zone Academy Bonds

QZABs are defined as any bond issued by a State or local government, provided that (1) at least 95 percent of the proceeds are used for the purpose of renovating, providing equipment to, developing course materials for use at, or training teachers and other school personnel in a "qualified zone academy," and (2) private entities have promised to contribute to the qualified zone academy certain equipment, technical assistance or training, employee services, or other property or services with a value equal to at least 10 percent of the bond proceeds.

A school is a "qualified zone academy" if (1) the school is a public school that provides education and training below the college level, (2) the school operates a special academic program in cooperation with businesses to enhance the academic curriculum and increase graduation and employment rates, and (3) either (a) the school is located in an empowerment zone or enterprise community designated under the Code, or (b) it is reasonably expected that at least 35 percent of the students at the school will be eligible for free or reduced-cost lunches under the school lunch program established under the National School Lunch Act.

A total of $400 million of QZABs has been authorized to be issued annually in calendar years 1998 through 2009. The $400 million aggregate bond cap is allocated to the States according to their respective populations of individuals below the poverty line. Each State, in turn, allocates the credit authority to qualified zone academies within such State.

Gulf Tax-Credit Bonds and Midwest Tax-Credit Bonds

Gulf tax-credit bonds may be issued by the States of Louisiana, Mississippi, and Alabama. To qualify as Gulf tax-credit bonds, 95 percent or more of the proceeds of such bonds must be used to (i) pay principal, interest, or premium on a bond (other than a private activity bond) that was outstanding on August 28, 2005, and was issued by the State issuing the Gulf tax-credit bonds, or any political subdivision thereof, or (ii) make a loan to any political subdivision of such State to pay principal, interest, or premium on a bond issued by such political subdivision. In addition, the issuer of Gulf tax-credit bonds must provide additional funds to pay principal, interest, or premium on outstanding bonds equal to the amount of Gulf tax-credit bonds issued to repay such outstanding bonds. Gulf tax-credit bonds must be a general obligation of the issuing State and must be designated by the Governor of such State. The

maximum maturity on Gulf tax-credit bonds is two years. The arbitrage rules restricting the ability of State and local governments to invest bond proceeds apply to Gulf tax-credit bonds.

Gulf tax-credit bonds must be issued in calendar year 2006. The maximum amount of Gulf tax-credit bonds that may be issued is $200 million in the case of Louisiana, $100 million in the case of Mississippi, and $50 million in the case of Alabama. Gulf tax-credit bonds may not be used to pay principal, interest, or premium on any bond with respect to which there is any outstanding refunded or refunding bond. Gulf tax-credit bonds may not be used to pay principal, interest, or premium on any prior bond if the proceeds of such prior bond were used to provide any of the following types of property: a private or commercial golf course, country club, massage parlor, hot tub facility, suntan facility, racetrack or other facility used for gambling, or any store the principal purpose of which is the sale of alcoholic beverages for consumption off premises.

Also, present law allows Midwestern tax-credit bonds to be issued in 2009 by any State in which a Midwestern disaster area is located (or any instrumentality of the State). The operation and effect of these Midwestern tax-credit bonds are otherwise identical to Gulf tax-credit bonds except for different volume caps. Under the provision, the maximum amount of Midwestern tax-credit bonds that may be issued is: (1) $100 million for any State with an aggregate population located in all Midwestern disaster areas within the State of at least 2,000,000; (2) (1) $50 million for any State with an aggregate population located in all Midwestern disaster areas within the State of at least 1,000,000 but less than 2,000,000; and (3) $0 for any other State. This provision is effective for bonds issued after December 31, 2008.

Qualified Energy Conservation Bonds

The Energy Improvement and Extension Act of 2008 created a new category of tax-credit bonds, qualified energy conservation bonds. Qualified energy conservation bonds may be used to finance qualified conservation purposes.

The term “qualified conservation purpose” means:

1. Capital expenditures incurred for purposes of reducing energy consumption in publicly owned buildings by at least 20 percent; implementing green community programs; rural development involving the production of electricity from renewable energy resources; or any facility eligible for the production tax credit under section 45 (other than Indian coal and refined coal production facilities);

2. Expenditures with respect to facilities or grants that support research in: (A) development of cellulosic ethanol or other nonfossil fuels; (B) technologies for the capture and sequestration of carbon dioxide produced through the use of fossil fuels; (C) increasing the efficiency of existing technologies for producing nonfossil fuels; (D) automobile battery technologies and other technologies to reduce fossil fuel consumption in transportation; and (E) technologies to reduce energy use in buildings;

3. Mass commuting facilities and related facilities that reduce the consumption of energy, including expenditures to reduce pollution from vehicles used for mass commuting;

4. Demonstration projects designed to promote the commercialization of: (A) green building technology; (B) conversion of agricultural waste for use in the production of fuel or otherwise; (C) advanced battery manufacturing technologies; (D) technologies to reduce peak-use of electricity; and (D) technologies for the capture and sequestration of carbon dioxide emitted from combusting fossil fuels in order to produce electricity; and

5. Public education campaigns to promote energy efficiency (other than movies, concerts, and other events held primarily for entertainment purposes).

There is a national limitation on qualified energy conservation bonds of $800 million. The credit rate for qualified energy conservation bonds is set by the Secretary at a rate that is 70 percent (rather than 100 percent) of the rate that would permit issuance of such bonds without discount and interest cost to the issuer. Allocations of qualified energy conservation bonds are made to the States with sub-allocations to large local governments.

Clean Renewable Energy Bonds and New Clean Renewable Energy Bonds

CREBs and New CREBs are used to finance capital expenditures incurred by qualified borrowers for facilities that qualify for the tax credit under section 45 (other than Indian coal production facilities and, in the case of New CREBs, refined coal facilities), without regard to the placed-in-service date requirements of that section. There is a national CREB limitation of $1.2 million. Of that amount, no more than $750 million may be allocated to governmental bodies. CREBs must be issued before December 31, 2009.

For New CREBs, there is a national limitation of $800 million. Unlike CREBs, however, the credit rate on New CREBs is set by the Secretary at a rate that is 70 percent (rather than 100 percent) of the rate that would permit issuance of such bonds without discount and interest cost to the issuer. No more than one-third of the national limit may be allocated to projects of public power providers, governmental bodies, or cooperative electric companies. Allocations to governmental bodies and cooperative electric companies may be made in the manner the Secretary determines appropriate. Allocations to projects of public power providers are to be made, to the extent practicable, in such manner that the amount allocated to each such project bears the same ratio to the cost of such project as the maximum allocation limitation to projects of public power providers bears to the cost of all such projects.

Qualified Forestry Conservation Bonds

Qualified forestry conservation bonds are bonds issued by qualified issuers to finance qualified forestry conservation projects. The term "qualified issuer" means a State or a section 501(c)(3) organization. The term "qualified forestry conservation project" means the acquisition by a State or section 501(c)(3) organization from an unrelated person of forest and forest land that meets the following qualifications: (1) some portion of the land acquired must be adjacent to United States Forest Service Land; (2) at least half of the land acquired must be transferred to the United States Forest Service at no net cost and not more than half of the land acquired may either remain with or be donated to a State; (3) all of the land must be subject to a habitat conservation

plan for native fish approved by the United States Fish and Wildlife Service; and (4) the amount of acreage acquired must be at least 40,000 acres.

A qualified issuer receiving an allocation to issue qualified forestry conservation bonds may, in lieu of issuing bonds, elect to treat such allocation as a deemed payment of tax (regardless of whether the issuer is subject to tax under chapter 1 of the Code) that is equal to 50 percent of the amount of such allocation. An election to treat an allocation of qualified forestry conservation bonds as a deemed payment is not valid unless the qualified issuer certifies to the Secretary that any payment of tax refunded to the issuer will be used exclusively for one or more qualified forestry conservation purposes. The deemed tax payment may not be used as an offset or credit against any other tax and shall not accrue interest. In addition, if the qualified issuer fails to use any portion of the overpayment for qualified forestry conservation purposes, the issuer shall be liable to the United States in an amount equal to such portion, plus interest, for the period from the date such portion was refunded to the date such amount is paid.

General rules applicable to qualified tax-credit bonds[34]

The following bonds are classified as "qualified tax-credit bonds": qualified forestry conservation bonds, New CREBs, qualified energy conservation bonds and QZABs issued after the date of enactment of the Tax Extenders and Alternative Minimum Tax Relief Act of 2008. Unlike tax-exempt bonds, qualified tax-credit bonds generally are not interest-bearing obligations. Rather, the taxpayer holding a qualified tax-credit bond on a credit allowance date is entitled to a tax credit. The amount of the credit is determined by multiplying the bond's credit rate by the face amount on the holder's bond. The credit rate for an issue of qualified tax credit bonds is determined by the Secretary and is estimated to be a rate that permits issuance of the qualified tax-credit bonds without discount and interest cost to the qualified issuer.[35] The credit accrues quarterly and is includible in gross income (as if it were an interest payment on the bond), and can be claimed against regular income tax liability and alternative minimum tax liability. Unused credits may be carried forward to succeeding taxable years. In addition, credits may be separated from the ownership of the underlying bond similar to how interest coupons can be stripped for interest-bearing bonds.

Qualified tax-credit bonds are subject to a maximum maturity limitation. The maximum maturity is the term which the Secretary estimates will result in the present value of the obligation to repay the principal on a qualified tax-credit bond being equal to 50 percent of the face amount of such bond. The discount rate used to determine the present value amount is the average annual interest rate of tax-exempt obligations having a term of 10 years or more which are issued during the month the qualified tax-credit bonds are issued.

[34] Separate rules apply in the case of tax-credit bonds which are not qualified tax-credit bonds (e.g., "old QZABs," "Gulf tax-credit bonds," "Midwestern tax-credit bonds," and "old CREBs").

[35] However, for New CREBs and qualified energy conservation bonds, the applicable credit rate is 70 percent of the otherwise applicable rate.

For qualified tax-credit bonds, 100 percent of the available project proceeds must be used within the three-year period that begins on the date of issuance. Available project proceeds are proceeds from the sale of the bond issue less issuance costs (not to exceed two percent) and any investment earnings on such sale proceeds. To the extent less than 100 percent of the available project proceeds are used to finance qualified projects during the three-year spending period, bonds will continue to qualify as qualified tax-credit bonds if unspent proceeds are used within 90 days from the end of such three-year period to redeem bonds. The three-year spending period may be extended by the Secretary upon the qualified issuer's request demonstrating that the failure to satisfy the three-year requirement is due to reasonable cause and the projects will continue to proceed with due diligence.

Qualified tax-credit bonds also are subject to the arbitrage requirements of section 148 that apply to traditional tax-exempt bonds. Principles under section 148 and the regulations thereunder apply for purposes of determining the yield restriction and arbitrage rebate requirements applicable to qualified tax-credit bonds. However, available project proceeds invested during the three-year spending period are not subject to the arbitrage restrictions (i.e., yield restriction and rebate requirements). In addition, amounts invested in a reserve fund are not subject to the arbitrage restrictions to the extent: (1) such fund is funded at a rate not more rapid than equal annual installments; (2) such fund is funded in a manner reasonably expected to result in an amount not greater than an amount necessary to repay the issue; and (3) the yield on such fund is not greater than the average annual interest rate of tax-exempt obligations having a term of 10 years or more that are issued during the month the qualified tax-credit bonds are issued.

Issuers of qualified tax-credit bonds are required to report issuance to the IRS in a manner similar to the information returns required for tax-exempt bonds. In addition, issuers of qualified tax-credit bonds are required to certify that applicable State and local law requirements governing conflicts of interest are satisfied with respect to such issue, and if the Secretary prescribes additional conflicts of interest rules governing the appropriate Members of Congress, Federal, State, and local officials, and their spouses, such additional rules are satisfied with respect to such issue.

III. BENEFITS AND COSTS OF TAX-EXEMPT BOND AND TAX-CREDIT BOND FINANCING

A. Tax-Exempt Bonds

Benefits and costs of the subsidy

Issuer benefit

Tax-exempt financing provides an implicit Federal subsidy to the borrower (i.e., either the qualified governmental unit or the conduit borrower) but, in practice some of the subsidy redounds to the bond investor (the lender). Because interest income on the bonds is excluded from gross income, the bond investor is willing to accept a lower interest rate on the bonds than he might otherwise accept on an identical taxable investment. Thus, the borrower receives an implicit Federal subsidy equal to the difference between the tax-exempt interest rate paid and the taxable rate that otherwise would be paid. In this way, the income exclusion lowers the cost of capital for the State and local governments (or private parties in the case of private activity bonds).

The following example illustrates the Federal subsidy measured as a percentage of the otherwise applicable taxable rate. Assume a school district may borrow either at a taxable rate of 6.25 percent or a tax-exempt rate of 4.5 percent. The yield spread in this example is 1.75 percentage points and the ratio of tax-exempt to taxable rates is 0.72, or 72 percent, and the subsidy is equal to 28 percent of the otherwise applicable taxable rate.[36] To illustrate the benefit of the subsidy in dollar terms, if the school district borrows $1 million at the taxable rate of 6.25 percent and $1 million at the tax-exempt rate of 4.5 percent, the school district's annual interest payments would be $62,500 on the taxable debt, but $45,000 on the tax-exempt debt, a $17,500 savings. In practice, however, this calculation overstates the borrower's interest savings because of certain inefficiencies associated with the issuance of tax-exempt bonds (explained below).

Finally, as the ratio of tax-exempt rates to taxable rates moves closer to one (i.e., the spread between tax-exempt and taxable interest rates narrows), the value of the subsidy to the borrower also diminishes. Among other reasons, this may occur as the volume of tax-exempt bond issuances increases and tax-exempt borrowers respond by offering higher interest rates to attract bond investors. (See Figure 1.a., below, comparing the average tax-exempt interest rate on high-grade municipal bonds and the average taxable interest rate on corporate bonds for the period 1986-2007. Figure 1.b., below separately reports the yield spread between the interest rates on tax-exempt and taxable bonds).

[36] Column 5 of Table 1, on page 28, may be used to illustrate the measure of the subsidy measured as a percentage of the otherwise applicable taxable rate for the period 1986-2007.

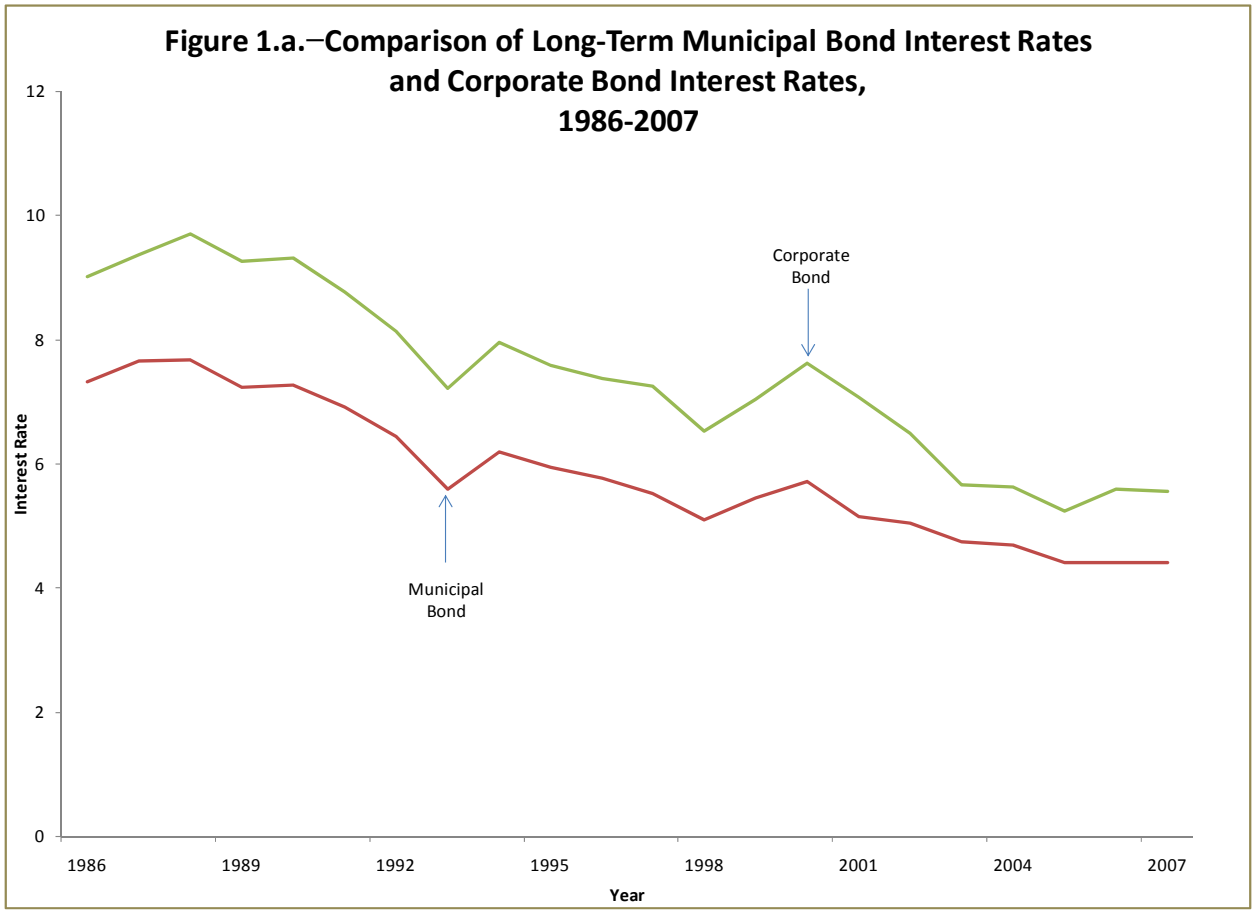
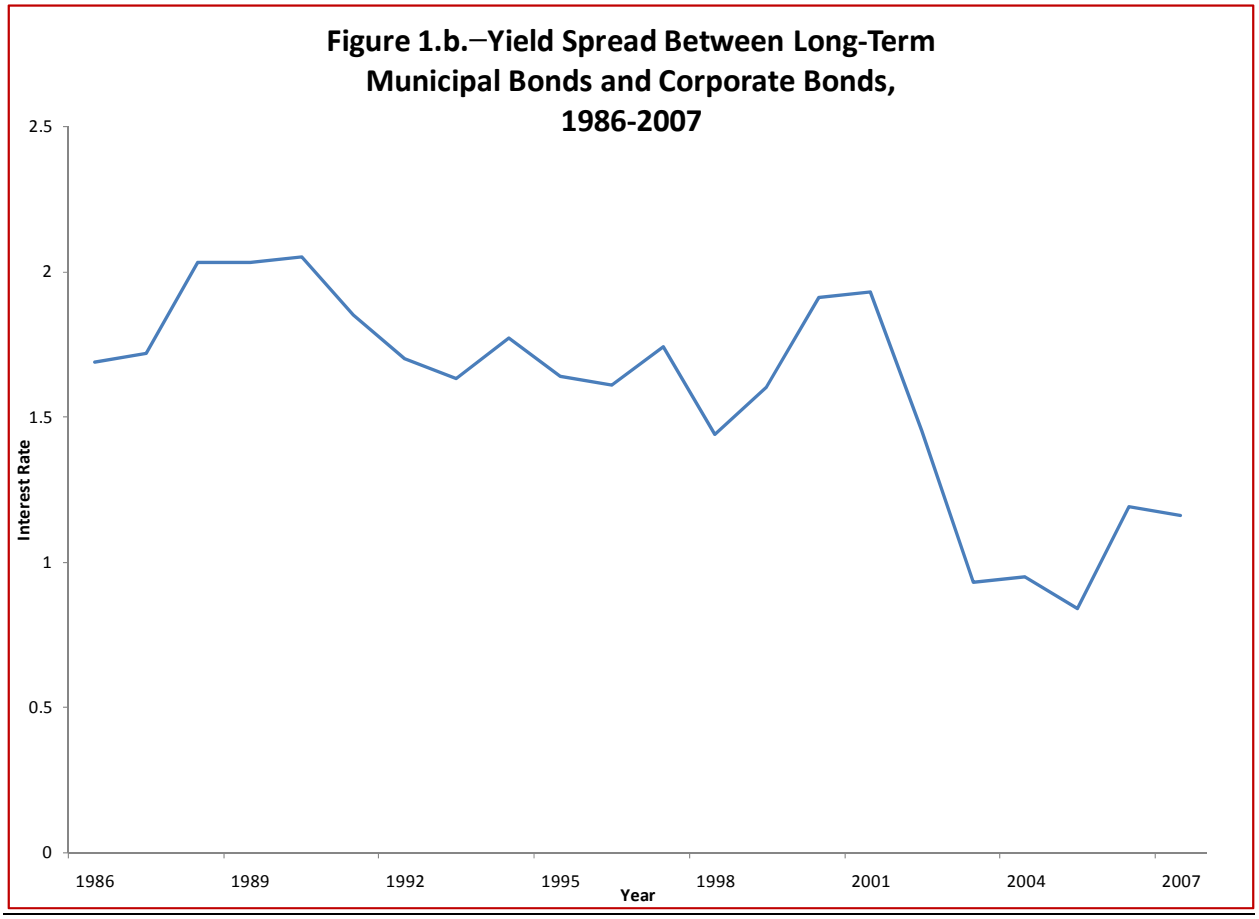


Figure 1.a.—Comparison of Long-Term Municipal Bond Interest Rates and Corporate Bond Interest Rates, 1986-2007
12
10
8
6
4
2
0
Interest Rate
Corporate Bond
Municipal Bond
1986
1989
1992
1995
1998
2001
2004
2007
Year



Bond investor benefit

The bond investor also receives a Federal subsidy from tax-exempt financing equal to the difference between the tax-exempt interest rate and the after-tax yield on a taxable investment. The bond investor's willingness to purchase tax-exempt bonds also depends on the bond investor's marginal tax rate. Generally, all other things being equal (such as credit worthiness), a bond investor is indifferent between a tax-exempt bond and a taxable bond with an equivalent after-tax yield.[37] To illustrate using the example from above, if a bond investor with a 28-percent marginal tax rate purchased a $1 million taxable bond at a 6.25-percent rate, as an alternative to the tax-exempt bond, the investor would receive $62,500 in interest income and pay $17,500 in income tax for a net return of $45,000 and an after-tax yield of 4.5 percent. This is the same net return the bond investor receives if he were to purchase the $1 million tax-exempt

[37] This may be represented as $r_e = (1-t)r$, where r_e is the tax-exempt yield, t is the investor's marginal tax rate, and r is the taxable bond yield.

bond. Thus, this bond investor generally would be indifferent to a taxable investment with a 6.25-percent rate and a tax-exempt investment with a 4.5-percent rate.

With many bond investors in different tax brackets, bond investors in higher marginal tax-brackets receive a larger tax benefit than those in lower brackets. For example, if a bond investor with a 33-percent marginal tax rate purchased the alternative $1 million taxable bond at a 6.25-percent rate, the investor would receive $62,500 in interest income and pay $20,625 in income tax for a net return of $41,875 and an after-tax yield of 4.19 percent. However, this bond investor would receive a 4.5 percent net return on the school district's tax-exempt bond. Thus, unlike the bond investor in the 28-percent marginal tax rate who is indifferent to investment in taxable or tax-exempt bonds, the bond investor in the 33-percent marginal tax rate receives a greater benefit by purchasing the tax-exempt bond. In contrast, a bond investor with a 15-percent marginal tax rate receives no benefit from purchasing the tax-exempt bond.

Revenue loss associated with tax-exempt bonds

The direct cost to the Federal government of the interest exclusion for State and local bonds is the income tax revenue forgone. Under our example, if the bond investor with a 28-percent marginal tax rate purchases the school district's $1 million tax-exempt bond with a 4.5-percent interest rate, the bond investor receives $45,000 of tax-exempt interest income for each year the bond is outstanding. However, assuming the bond investor's preferred alternative investment is a taxable bond, the actual revenue loss to the Federal government is based upon the taxable yield the bond investor forgoes. For example, if the bond investor purchased the taxable bond at a 6.25-percent rate, rather than the tax-exempt bond, the bond investor would have received $62,500 in interest income and paid $17,500 in income tax. In this case, the revenue forgone to the Federal Government equals the interest savings of the school district.

However, using the second part of the example from above, if the bond investor in the 33-percent bracket purchases the school district's tax-exempt bond, it costs the Federal Government $20,625 ($62,500 of interest income taxed at a 33-percent rate). Due to the existence of multiple tax brackets, the loss of Federal receipts is greater than the reduction in the tax-exempt issuer's interest cost. In this case, the $17,500 interest subsidy realized by the school district costs the Federal Government $20,625. The difference accrues to bond investors in tax brackets higher than those that would be implied by the yield spread between taxable and tax-exempt bonds. Thus, if a bond investor in the 28-percent bracket finds it profitable to hold a tax-exempt security, a bond investor in the 33-percent bracket will find it even more profitable. This implies that the Federal Government will lose more in revenue than the tax-exempt issuer gains in reduced interest payments.[38] This is one source of inefficiency to the subsidy provided by the tax exemption.

[38] To the extent that bond investors in lower tax brackets purchase tax-exempt bonds for nontax reasons, such as to help support the local schools, the revenue forgone would be less than the issuer's interest savings.

Table 1, below, reports the data used for Figures 1.a. and 1.b. It also calculates the implied marginal tax rate at which the bond investor would be indifferent between holding the average corporate bond and the average municipal bond.[39] The table shows that generally over the past two decades any holdings of tax-exempt bonds by bond investors in a 25-percent marginal tax bracket and above would have led to the inefficiency described above.[40]

[39] Some analysts suggest that consideration of other financial assets beyond a comparison of taxable and tax-exempt bonds determine the yield spread between taxable and tax-exempt interest rates. In particular, these analysts suggest that the yield spread increases (decreases) as the dividend yield on corporate stocks increases (decreases). (N. Gregory Mankiw and James M. Poterba, "Stock Market Yields and the Pricing of Municipal Bonds," National Bureau of Economic Research Working Paper #5607, June 1996.) However, such an augmented analysis of the yield spread does not alter the conclusion that the Federal Government loses more in revenue from State and local issuance of tax-exempt bonds, than the borrower gains in reduced interest costs.

[40] Individual taxpayers are asked to self-report tax-exempt interest income earned during the taxable year, although there is no penalty for a failure to report (*e.g.*, line 8a of Form 1040). The staff of the Joint Committee on Taxation projects that for 2009 approximately 4.9 million individual taxpayers will report approximately $71 billion of tax-exempt interest. Of those totals, the staff of the Joint Committee on Taxation projects that 3.2 million taxpayers will be in marginal tax brackets of 25 percent or higher in 2009 and they will report in excess of $56 billion in tax-exempt interest.

Table 1.−Comparison of Taxable Interest Rates and Tax-Exempt Interest Rates, 1986-2007

Year	Corporate Bonds [1] [Percent]	High-Grade Municipal Bonds [2] [Percent]	Yield Spread [Percent]	Implied Tax Rate of Marginal Investor [Percent]
1986	9.02	7.33	1.69	18.7
1987	9.38	7.66	1.72	18.3
1988	9.71	7.68	2.03	20.9
1989	9.26	7.23	2.03	21.9
1990	9.32	7.27	2.05	22.0
1991	8.77	6.92	1.85	21.1
1992	8.14	6.44	1.70	20.9
1993	7.22	5.59	1.63	22.6
1994	7.96	6.19	1.77	22.2
1995	7.59	5.95	1.64	21.6
1996	7.37	5.76	1.61	21.8
1997	7.26	5.52	1.74	24.0
1998	6.53	5.09	1.44	22.1
1999	7.04	5.44	1.60	22.7
2000	7.62	5.71	1.91	25.1
2001	7.08	5.15	1.93	27.3
2002	6.49	5.04	1.45	22.3
2003	5.67	4.74	0.93	16.4
2004	5.63	4.68	0.95	16.9
2005	5.24	4.40	0.84	16.0
2006	5.59	4.40	1.19	21.3
2007	5.56	4.40	1.16	20.9

[1] Annual average bond yield for Moody's Long Term Aaa Corporate Bond Index. Source: *Economic Report of the President, 2008*.

[2] Bond Buyer 20-year Municipal Bond Index, an index consisting of 20 general obligation bonds that mature in 20 years. The average rating of the bonds is roughly equivalent to Moody's Aa1 rating. Source: *2008 Thompson Financial Bond Buyer Year Book.*

Issuance costs

Borrowers always incur transactions costs in attaining loanable funds. Generally, issuing tax-exempt bonds to finance capital costs is a complex and expensive process. In addition to the borrower and bond investor, there are a number of parties employed to facilitate a bond issuance (e.g., service providers such as investment bankers and attorneys). The requirements for tax exemption may result in higher incremental costs of issuance for tax-exempt bonds than those associated with issuing taxable bonds. Because a portion of the benefits of tax exemption flows to these service providers in the way of fees, such fees are a second potential source of inefficiency resulting from tax-exempt financing.

Arbitrage potential

As described in Part II.D, above, present law generally restricts the ability of qualified governmental units and other parties to earn and retain arbitrage profits. Without these rules, the reduced cost of funds obtained through tax-exempt bonds provides issuers the opportunity to earn arbitrage profits by investing tax-exempt bond proceeds in higher yielding investments. For example, the average yield spread between taxable and tax-exempt debt for the period 1986-2007, as reported in Table 1, above, was approximately 1.6 percent. Consider a simple arbitrage transaction of the type available to borrowers using tax-exempt debt prior to restrictions adopted by the Congress in 1969. Assume a local government planned to construct a $10 million building. Further assume the local government issued $10 million in tax-exempt bonds with the knowledge that the construction schedule was such that the local government could invest a five-year average of $5 million of the $10 million in bond proceeds in taxable securities yielding interest at 1.00 percent greater than the interest the issuer would owe on its tax-exempt bonds. This investment would generate $50,000 in profit to the local governmental issuer annually net of interest payments to the owners of the local government's bonds.[41] Over the five-year period, the quarter of million dollar profit equals 2.5 percent of principal value of the bond issue. The ability to earn arbitrage profits means that project costs are lowered beyond the benefit reflected in a comparison of taxable and tax-exempt interest rates. One could say that, if the yield spread reflects the implicit Federal subsidy to a State or local issuer's borrowing costs, potential arbitrage profits reflect an implicit Federal subsidy to the payment of the principal amount of the State or local issuer's borrowing.

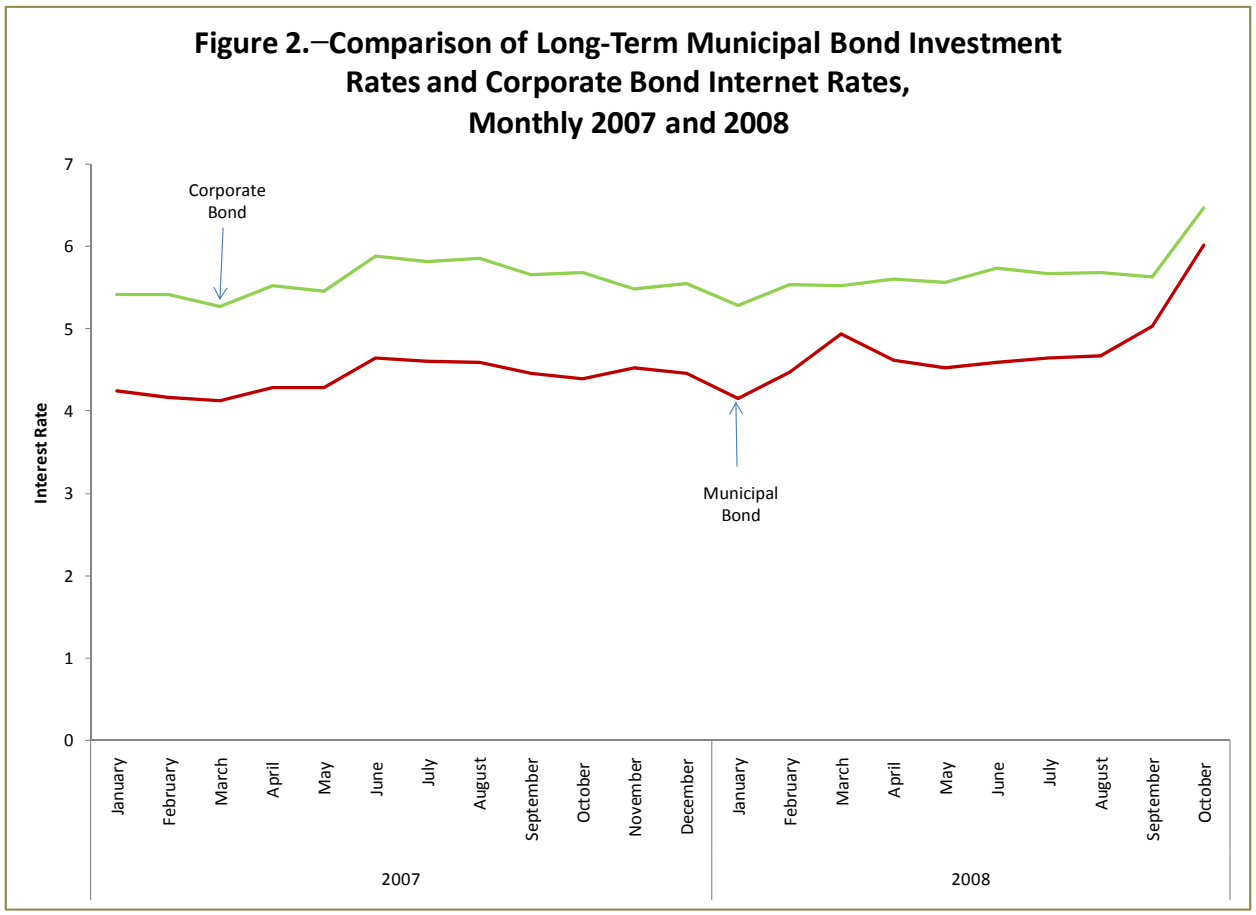
Arbitrage transactions have no economic substance, as the issuance of one financial instrument (the tax-exempt bond) is offset by the purchase of another financial instrument (typically another debt instrument). The transaction is made profitable solely through the ability to borrow at tax-exempt rates in reliance on a Federal subsidy of borrowing costs. If permitted to earn and retain arbitrage profits, borrowers would have a substantial incentive to issue more bonds, to issue them earlier, and to leave them outstanding longer than necessary. From the Federal Government's standpoint, allowing arbitrage profits to be earned from the issuance of tax-exempt bonds is an inefficient alternative to additional borrowing, because it is more costly

[41] For simple examples and explanations of arbitrage transactions, see, Dennis Zimmerman, *The Private Use of Tax-Exempt Bonds*, (Washington, D.C.: The Urban Institute Press), 1991, pp. 158-162.

to the Federal Government in terms of forgone tax revenue than the additional borrowing that would be necessary to produce the same amount of proceeds.

More recent market conditions for tax-exempt debt

With recent financial market turmoil the value of Federal tax exemption has declined. Figure 2, below, makes the same comparison as does Figure 1, comparing the average yield on 20-year general obligation tax-exempt bonds to roughly comparable 20-year taxable bonds. Figure 2 reports bond yields monthly on the middle Thursday of each month. In both September and October of 2008, the market has priced the implicit subsidy from tax-exempt borrowing at less than 11 percent.



Figures 1 and 2 have reported bond yields on long-term bonds. State and local issuers also issue short-term debt, such as exempt commercial paper. Like taxable enterprises, State and local governments use short-term borrowing to finance payroll and other current budget needs that are not perfectly matched to timing of their tax revenues. Figure 3, below, compares yields for 30-day tax-exempt commercial paper to yields on 30-day Aa rated nonfinancial commercial

paper.[42] Figure 3 documents that the yield spread between taxable and tax-exempt commercial paper has narrowed significantly over the past 12 months. In October 2008, tax-exempt commercial paper traded at a yield in excess of that of taxable commercial paper, notwithstanding the tax exemption available.

Figure 3.—Comparison of Yields on Tax-Exempt and Taxable Commercial Paper, Monthly 2007 and 2008

[42] The source for yields on tax-exempt commercial paper in Figure 3 is Municipal Market Data. The source for yields on nonfinancial commercial paper is the Federal Reserve. The data in Figure 3 represent the quoted yields reported on the middle Friday of each month.

B. Tax-Credit Bonds

Benefits and costs of the subsidy[43]

One hundred percent interest credit

As described above, tax-credit bonds that have been issued to date are not interest-bearing obligations. Rather, the taxpayer holding a tax-credit bond on a credit allowance date is entitled to a tax credit. The amount of the credit is determined by multiplying the bond's credit rate by the face amount[44] on the holder's bond. For the present law categories of tax-credit bonds, the credit rate on the bonds is determined by the Secretary of the Treasury and is an estimate of the rate that permits issuance of such bonds without discount and interest cost to the qualified issuer. That is, the tax credit is chosen to approximate an interest rate subsidy of 100 percent. The credit is includible in gross income (as if it were an interest payment on the bond), and can be claimed against regular income tax liability and alternative minimum tax liability.

Under present law, the Federal subsidy provided to issuers by tax-credit bonds is deeper than the subsidy for tax-exempt bonds. This is because the issuer of tax-credit bonds pays no interest, only principal.[45] The "interest" is paid by the Federal Government in the form of tax credits. Thus, the issuer theoretically has an interest-free loan. In comparison, issuers of tax-exempt bonds pay interest on such obligations, albeit at a lower interest rate than if the debt were taxable. As noted above, the Federal subsidy provided to borrowers using tax-exempt bonds is limited to the difference between the tax-exempt interest rate paid and the taxable bond rate that otherwise would be paid.[46]

The Federal subsidy for tax-credit bonds is economically equivalent to the Federal government directly paying the interest on a taxable bond issue on behalf of the State or local

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[43] Congressional Budget Office, *Tax-Credit Bonds and the Federal Cost of Financing Public Expenditures*, July 2004, offers an analysis of the economics of tax-credit bonds and alternatives.

[44] The "face amount" (or par value) represents the value of a bond at maturity as stated on the bond certificate.

[45] This conclusion assumes the bonds are not issued at discount. If tax-credit bonds are issued at discount, *i.e.*, less than par value, the issuer incurs interest cost to the extent its debt service payments will exceed the amount of proceeds received from the sale of the bonds. This may occur because the rate on a prospective issue of tax-credit bonds is set lower than what investors are willing to accept to purchase the bonds at par value. To illustrate, assume the credit rate on tax-credit bonds with a face amount of $100 is set at five percent. If investors do not view the five percent credit rate as an acceptable return given the riskiness of the investment, they will purchase the bonds for something less than $100, *e.g.*, $90. Because the credit is determined by reference to the face amount of bonds ($100), the investor purchasing tax-credit bonds at a discount ($90) receives a higher yield than the stated credit rate. However, the issuer must repay the full face value of the bonds, $100 in this example, even though it received less than $100 in proceeds.

[46] This discussion ignores any potential for permitted arbitrage earnings.

government benefiting from the bond proceeds.[47] To see this, consider any taxable bond that bears an interest rate of 10 percent. A thousand dollar bond would thus produce an interest payment of $100 annually. The owner of the bond that receives this payment would receive a net payment of $100 less the taxes owed on that interest. If the taxpayer were in the 28-percent Federal tax bracket, such taxpayer would receive $72 after Federal taxes. Regardless of whether the State government or the Federal government pays the interest, the taxpayer receives the same net-of-tax return of $72. In the case of tax-credit bonds, no cash interest is paid by the Federal government. Rather, a tax credit of $100 is allowed to be taken by the holder of the bond. In general, a $100 tax credit would be worth $100 to a taxpayer, provided that the taxpayer had at least $100 in tax liability. However, for tax-credit bonds, the $100 credit also has to be claimed as income. Claiming an additional $100 in income costs a taxpayer in the 28-percent tax bracket an additional $28 in income taxes, payable to the Federal government. With the $100 tax credit that is ultimately claimed, the taxpayer nets $72 of interest income by holding the bond. The Federal government loses $100 on the credit, but recoups $28 of that by the requirement that it be included in income, for a net cost of $72, which is exactly the net return to the taxpayer. If the Federal government had simply agreed to pay the interest on behalf of the State or local government, both the Federal government and the bondholder/taxpayer would be in the same situation. The Federal government would make outlays of $100 in interest payments, but would recoup $28 of that in tax receipts, for a net budgetary cost of $72, as before. Similarly, the bondholder/taxpayer would receive a taxable $100 in interest, and would owe $28 in taxes, for a net gain of $72, as before. The State or local government also would be in the same situation in both cases.

In addition to the deeper subsidy provided by 100-percent tax credit bonds, tax-credit bonds do not generate the same revenue loss inefficiency as do tax-exempt bonds. As explained in Part III.A., above, in the case of a tax-exempt bond, the loss of Federal receipts is greater than the reduction in the tax-exempt issuer's interest cost. This is due to the existence of multiple tax brackets and the bond investor's tax saving is dependent upon the bond investor's marginal tax rate. With a tax-credit bond, the bond investor's tax saving is independent of the bond investor's marginal tax rate. As a consequence, with a tax-credit bond, the loss in Federal receipts from the tax credit equals the reduction in the tax-credit bond issuer's interest cost.

Partial tax-credit bonds

As explained above, present-law tax-credit bonds attempt to offer a 100-percent interest rate subsidy. A tax-credit bond need not be structured as solely an instrument that offers a 100-percent interest subsidy. The Energy Improvement and Extension Act of 2008 authorizes the Treasury to allocate $800 million in new CREBs and $800 million in qualified energy conservation bonds that will carry a tax-credit equal to 70 percent of a 100-percent tax-credit bond. As such bonds have not yet been issued, it is unclear if issuers will choose to supplement

[47] This is true provided that the taxpayer faces tax liability of at least the amount of the credit. Without sufficient tax liability, the proposed tax-credit arrangement would not be as advantageous. Presumably, only taxpayers who anticipate having sufficient tax liability to be offset by the proposed credit would hold these bonds.

the bond with a cash coupon such that the bond will initially sell at par or merely rely on the proceeds of a bond that likely would sell at a discount to par. Other analysts have suggested a different structure in which issuers would issue tax-credit bonds that have a cash interest component, the interest income of which would be taxable, and that a tax credit also may be claimed for receipt of such cash interest payments.[48]

As reported in Table 1, above, tax-exempt debt generally has offered borrowers an interest rate subsidy of 25 percent or less for the past two decades. Because the additional revenue cost to the Federal government that arises as a result of the current income tax structure's increasing marginal tax rates does not arise when individuals or institutions hold tax-credit bonds rather than tax-exempt bonds (a credit generally has the same value regardless of a taxpayer's marginal tax rate), it may be possible to choose a credit rate that provides an interest rate subsidy of greater than 25 percent (but substantially less than 100 percent) and cost the Federal government less in forgone revenue than would the issuance of a traditional tax-exempt bond for the same State or local purpose.

Issuance costs and arbitrage potential

Issuance costs

At present, issuance costs for tax-credit bonds likely exceed those of tax-exempt bonds. Because tax-credit bonds are relatively new financial instruments, fewer potential borrowers are familiar with the applicable rules. Also, present law limits the total dollar value of issuance of these instruments. This, too, would likely discourage participation by some service providers (*i.e.*, investment bankers, financial advisors, and bond counsel). These factors generally would result in fewer service providers competing for the business of helping borrowers issue tax-credit debt, with the result being higher prices for such services. Because a portion of the benefit of the tax credit flows to these service providers in the way of fees, such fees are a second potential source of inefficiency resulting from tax-exempt financing. Through time more service providers would be expected to become familiar with these financial instruments reducing current disparities in the issuance costs of tax-exempt and tax-credit bonds. If the Congress were to continue to permit the issuance of tax-credit bonds, their increased share in the financial market also would be expected to reduce current disparities in the issuance costs of tax-exempt and tax-credit bonds. Nevertheless, as is the case with tax-exempt bonds, the additional requirements for tax-credit bonds may result in higher incremental costs of issuance for tax-credit bonds than those associated with issuing taxable bonds.

Arbitrage potential

In general tax-credit bonds are subject to the same arbitrage and rebate requirements, as detailed in section 148 of the Code, applicable to tax-exempt State and local bonds. However, issuers of QZABs, new CREBs, qualified energy conservation bonds, and forestry conservation bonds are allowed to take advantage of special arbitrage rules that provide a limited ability for

[48] One such vision of a partial tax-credit bond is described in CBO, *Tax-Credit Bonds and the Federal Cost of Financing Public Expenditures.*

borrowers to invest bond proceeds and use the earnings from such investments to make additional qualified expenditures. This ability to invest bond proceeds and retain the earnings increases the magnitude of the tax expenditure available for qualified expenditure purposes beyond the interest cost saving achieved through having the borrower's interest costs paid in full, or in part, by the Federal tax credit. If as a general matter issuers of tax-credit bonds had the ability to earn and retain arbitrage profits, issuers would have an incentive to issue more tax-credit bonds and to issue the bonds earlier than necessary to fund a qualified project. As a result, there may be increased delays in the expenditure of bond proceeds for approved purposes to earn greater arbitrage profits.