

ECONOMIC COMMENTARY

Federal Reserve Bank of Cleveland

Public Subsidies for Private Purposes

by William P. Osterberg

The last day of 1990 was an important date for sports franchises. It had nothing to do with opening day, a national championship, or a players' draft, but for several cities it appeared to determine whether they would be able to retain or to attract a major-league sports team. December 31, 1990 marked the expiration of a provision in the federal tax code granting federal tax exemption to the debt issued by specific local governments to finance sports facilities.

The final week of 1990 consequently saw last-minute debt issues passed to fund publicly supported stadiums in three cities: In St. Louis, \$72.4 million of tax-exempt bonds were issued to finance a downtown hockey arena complex. In Denver, \$55 million of bonds were issued for a stadium to be built if the city wins a major-league baseball franchise this year. In Cleveland, where \$148 million of bonds were issued for construction of a new baseball stadium and basketball arena, county voters approved a hotly debated "sin" tax on alcohol and tobacco products as part of the funding plan.

The success of publicly funded stadiums within metropolitan areas is uncertain, depending on future attendance levels and on the magnitude of indirect benefits, such as relocation of new businesses to the area. Proponents of such stadiums claim that without the necessary local support, teams might choose to relocate and their cities would lose employment, tax revenues, and other indirect benefits. Opponents claim that these benefits are probably overstated

and the likely future costs understated, making probable the need for even more public support in the future. Other elements of the debate include the emotional attachment of fans to their teams and contentions about assessment of the costs and benefits of these projects.

There is yet another perspective on the costs and benefits of constructing sports facilities: financing arrangements. A key element of the funding plans is the exemption from federal and most state and local income tax of interest earnings on qualified municipal securities (munis) that could be issued to finance these stadiums. The borrower can then sell bonds at a lower interest rate than if the interest were taxed. Debates about the proposed stadiums occasionally mentioned that the year-end 1990 deadline was related to the expiration of provisions in the federal tax code that would reduce funding costs, but the implications of this exemption were generally not discussed.

This *Economic Commentary* presents the arguments for and against this hidden subsidy, discussing the mechanism through which the income tax exemption reduces local funding costs and how this is related to the distribution of benefits from the exemption. Possible rationales for public subsidies of sports stadiums are introduced, along with a historical perspective on federal tax exemptions on interest from bonds used to finance primarily public activities. Finally, the article discusses how current limitations on the volume of tax-exempt municipal bonds make this

The use of municipal debt issues to fund sports stadiums has been the focus of much debate, but an often-overlooked part of the story is the role of federal tax exemption in financing private, local facilities. Is this hidden subsidy necessary, or even desirable?

form of federal subsidy to local governments more similar to direct federal subsidies, which in theory are more cost effective.

■ **Tax Exemption and Finance Costs** Stadium projects are large, complex ventures that are costly to construct and consequently involve the financial backing of many parties. Local governments typically become involved by issuing tax-exempt bonds to finance these projects. Until the Tax Reform Act of 1986 (TRA 1986), local governments could issue tax-exempt bonds for many private-purpose activities, including sports facilities, residential home mortgages, and industrial and commercial enterprises. TRA 1986 eliminated this provision for many private activities and extended the tax-exempt status of a few proposed projects, such as Cleveland's Gateway complex, until the end of 1990.

Tax-exempt status for these stadium projects substantially reduces their financing costs. The spread between tax-exempt bonds and equivalent taxable securities averaged 2.33 percentage points during

1990. For a project the size of Gateway, which issued \$148 million in tax-exempt bonds, a reduction in the interest rate of 2 or more percentage points could result in substantial savings.

Borrowing costs are lower on tax-exempt bonds because investors who are concerned about after-tax rates of return are willing to accept a lower interest rate on the munis. By definition, marginal investors are indifferent between investing an additional dollar in taxable or in tax-exempt securities. The tax rate for these investors is the one relevant for determining yields on munis. For example, suppose that the effective tax rate of the marginal investor is 25 percent, which according to *Moody's Bond Survey* was the break-even marginal tax rate in 1990. If the taxable interest rate, as determined by the national bond market, on an alternative investment of equivalent risk is 10 percent, then the rate that the muni must bear can be calculated as $(1 - 0.25) (10 \text{ percent}) = 7.5$ percent. This shows that the federal tax exemption to particular categories of municipal finance reduces financing costs by an amount directly related to the tax rate of marginal investors.

The lower borrowing costs to local government are not without costs to someone, however. For the federal government, the cost is reduced revenue from income tax collections. Using the simple example above, for every \$100 invested in tax-exempt rather than taxable bonds, the federal government receives \$25 less in revenues. For the state government, the revenue loss is also directly tied to the effective state tax rate of the marginal investor. Consequently, both federal and state governments are effectively subsidizing the projects of local governments.

This relationship between taxable and nontaxable interest rates implies that the distribution of benefits from investing in munis is directly related to the individual investor's marginal tax rate. The marginal investor, who determines the market rate for nontaxable securities (munis), just breaks even by investing in munis instead of taxable securities,

and is thus indifferent between the two. However, an investor in a higher tax bracket receives, in effect, a bonus for investing in munis.

This additional benefit is depicted in figure 1, which shows the relationship between the quantity of municipal debt outstanding and the yield spread between tax-exempt and taxable securities. In this case, the demand for munis is the curve labeled *D*. It slopes upward because as the yield spread narrows, individuals in progressively lower tax brackets become indifferent between the two types of securities.

Consider point *e*, where the demand curve intersects the vertical axis. Here, investors would be indifferent between a nontaxable security yielding 6.5 percent and a taxable one yielding 10 percent if they were in the 35-percent tax bracket. Marginal investors at *d*, where demand equals the fixed supply of munis (depicted by *M*), would be indifferent between taxable and nontaxable securities when the interest rate is 7.5 percent, the market rate for the nontaxable security. Therefore, investors in the 35-percent tax bracket, who would have purchased a muni at 6.5 percent, would actually receive a yield 1.0 percentage points higher than what was necessary to induce them to invest in munis. They would effectively receive a bonus, which could also be construed as an additional tax break.

Federal income tax collections at *e* are lower by this same amount. For investors in slightly lower tax brackets, who would be located on the demand curve to the right of investor *e*, the "bonus" is slightly less, making the tax losses less, but still significant. The result of this bonus is that while the local government receives a subsidy from the federal government of the magnitude represented by the area *abcd*, the cost to the federal government in forgone revenue is *ebcd*.

The cost to the federal government over and above the amount of the subsidy (the triangle *ead*) represents the inefficiency in this type of government subsidy. The

actual magnitude of this inefficiency depends on the range of federal tax rates above that of the marginal investor. For individuals, who hold 42.4 percent of tax-exempt securities, the effective tax rate of the highest bracket was 31.5 percent in 1990—6.4 percentage points above the break-even marginal tax rate computed by Moody's. For corporations, which hold 32.8 percent of these bonds, the effective tax rate was 34 percent.¹

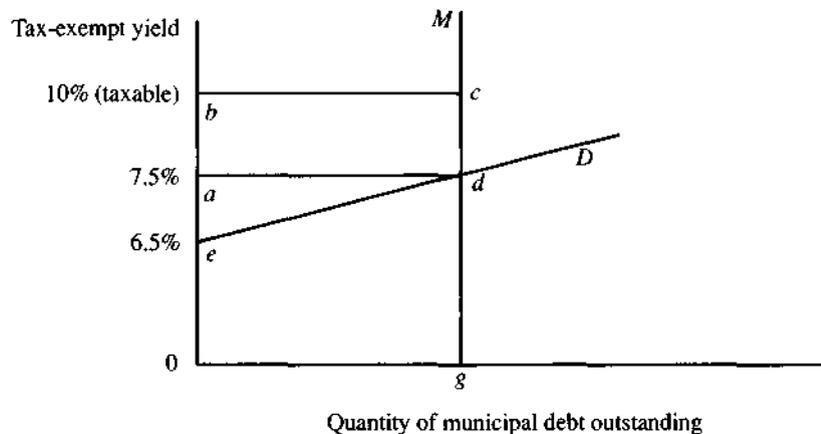
Recent estimates by the Joint Tax Committee show that this inefficiency amounted to about \$18.1 billion in 1990. In comparison, the fiscal year 1992 budget indicates that aid to state and local governments in the form of tax exemptions for both public and private bonds is equivalent to approximately \$25 billion in outlays. This amount is significant, but it pales in comparison to total federal grants-in-aid to state and local governments of \$522.4 billion in 1990.²

The implicit suggestion is that instead of granting exemptions for categories of activities—no matter how clearly defined—Congress should rely on block grants to directly limit federal expenditures. In fact, based on our discussion of the relation between tax exemption and finance costs, an argument can be made that direct subsidies from the federal to the state government are more efficient than tax exemption. Nonetheless, direct federal aid has not kept pace with local demand for financing capital projects.

■ A Social Benefit Rationale?

Lower finance costs obviously increase the likely profits of stadium projects, but it is far from clear that the reallocation of funds is socially desirable. Why should taxpayers from areas outside St. Louis, Denver, or Cleveland help to subsidize a new sports facility? If a stadium would not be built without the subsidy, reducing the cost to the tax-exempt interest rate, the predicted rate of return must have been insufficient to justify borrowing at the higher taxable interest rate. The funds directed toward a stadium would have been invested

FIGURE 1 THE MARKET FOR TAX-EXEMPT SECURITIES



SOURCE: Author's calculations.

elsewhere, earning at least the equivalent taxable interest rate. Consequently, not only are outside taxpayers subsidizing these local projects, but the tax-exempt status of bonds also shifts funds from projects earning at least the taxable rate to those earning the lower nontaxable rate. This implies that at least the private benefits, incorporated into the predicted rate of return, have been reduced as a result of the subsidy.

One possible rationale for subsidizing sports stadiums is that their benefits extend beyond those generated solely by attendance at games and the revenues associated with actual sporting events. Many contend that sports stadiums yield externalities that indirectly benefit the broader communities in which they are located. The presence of a stadium may enhance a locale's attractiveness to businesses or to prospective residents. If so, one could justify that at least local residents, regardless of whether they actually attend an event, should pay some of the costs of the facility.

This argument makes sense only if the social benefit pertains to the subsidizing jurisdiction. For example, if the city of Cleveland stood to benefit from a new stadium more than its private developers could, then it might be logical for the city (through its taxpayers) to subsidize the stadium as long as the amount of the benefit that could not be realized solely by private parties exceeded the

loss from the reallocation of resources from privately productive activities. Similarly, if the state of Ohio benefited as a whole (possibly at the expense of other states), then it might make sense for the state to subsidize the stadium.³ However, it is less plausible that the country as a whole would profit, since part of the benefit to a locality may be at the expense of other municipalities or states. In this view, a federal tax subsidy makes no sense.

■ Public versus Private Activities

Interest earned on the bonds of states and their political subdivisions, such as municipalities and counties, was initially excluded from federal taxable income in 1913. A surge in the issuance of municipal debt starting in the 1960s led to increased scrutiny of the activities being financed. As a result, the extent of subsidization of "private-purpose" bonds via tax exemption has been curtailed over time.

Although estimates of private versus public bonds have been compiled only recently, the relative growth of revenue bonds, such as those used to finance these stadium projects, compared with general obligation bonds is noteworthy. General obligation (GO) bonds are those that will be paid back through the taxing power of the issuing authority. These bonds are typically used to finance traditional capital projects such as highways, roads, and sewers.

Revenue bonds are paid back from the revenues generated by the specific project. While GO bonds generally correspond to public-purpose bonds and revenue bonds to private-purpose bonds, some public projects may be financed with revenue bonds. However, the GO/revenue distinction is inadequate to determine which activities deserve this particular type of subsidy.

The Revenue and Expenditure Control Act of 1968 was the first of many laws to curtail the use of revenue bonds. It stated that if 25 percent or more of the project's proceeds went to private business or if 25 percent or more of the debt's security backing was used in trade or business, then the debt issue would be deemed private and ineligible for tax exemption. These revenue bonds were labeled taxable industrial development bonds (IDBs). TRA 1986 reduced that threshold to 10 percent.

Such arbitrary percentages still do not correspond to the external benefits associated with such projects, however. As a result, Congress has created distinct classes of activities for which "tax-exempt IDBs" may be issued. The Tax Equity and Fiscal Responsibility Act of 1982, for example, prohibited the use of tax-exempt issues for golf courses, country clubs, massage parlors, hot tub and suntan facilities, racetracks, and racquet sports facilities.⁴ TRA 1986 repealed prior exemptions for convention and trade show facilities, parking garages, sports arenas, air and water pollution control facilities, and industrial park IDBs. However, numerous exceptions have been made through the yearly transition rules attached to the federal budget. Tax-exempt financing for the three stadiums previously mentioned are made possible by such extensions.

Two recent developments illustrate the extent to which such provisions in the federal tax code may be directed at specific facilities. In Cleveland, the planned baseball stadium, financed with tax-exempt issues, will ultimately become the property of the city. However, local legislators intend to request that the federal tax code be changed so

that the basketball arena portion of the Gateway complex, financed with taxable bond issues, would also become public property. In Detroit, local officials have considered asking for transition rules to allow tax-exempt debt finance for a new baseball stadium.⁵

In addition, Congress has sought to control the extent of these subsidies by restricting the total amount of tax-exempt private-activity debt for each state. Currently, the ceiling is the maximum of \$150 million or \$50 per person per state. This cap helps to limit the total amount of federal "tax expenditures" associated with the subsidy.⁶ Preliminary evidence indicates that volume caps on private-activity bonds may be reasonably successful in controlling these tax expenditures. Without such restrictions, the extent of the federal subsidy implied by tax exemption would be limited only by how much borrowing localities chose to undertake.⁷

■ Conclusion

The controversies generated by last-minute municipal debt issues to fund sports stadiums have focused on local costs and benefits. However, the implications of the federal tax exemption provided to such debt issues have not been the focus of much attention. This article points out a number of problems with this exemption. First, it benefits those in relatively high tax brackets, in-

terfering with tax equity. Second, even if one could argue that sports stadiums provide benefits beyond simply housing sporting events, it is difficult to contend that these benefits extend much beyond the local community and are deserving of a federal subsidy.

Third, direct subsidy is more efficient than tax exemption. In fact, the difficulty in separating public-purpose from private-purpose activities has led to limitations on the overall volume of federal tax exemption of private-activity bonds. This limits the inefficiency of the system of exemptions. However, as federal aid from other sources lags the investment needs of local governments, and as cities are expected to increase their responsibilities in light of federal program cutbacks, local governments have strong incentives to seek the subsidies embodied in tax-exempt financing.

■ Footnotes

1. These figures are from the Federal Reserve System's end-of-year Flow of Funds Account balance sheet data for 1989. Corporations include commercial banks and insurance companies other than life insurance firms. Also see *Moody's Bond Survey*, selected years.

2. See *Budget of the United States Government, Fiscal Year 1992*, Washington, D.C.: Office of Management and Budget, part III, p. 37, and part I, p. 21. The inefficiency estimate is from *Estimates of Federal Tax Expendi-*

tures for Fiscal Years 1991-1995, U.S. Congress, Joint Committee on Taxation, 1990.

3. Of course, if other localities can offer competitive subsidies, the overall terms obtained by any one locality are likely to suffer.

4. See Dennis Zimmerman, *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity*, Washington, D.C.: The Urban Institute Press, 1991, pp. 182-84.

5. See *The Plain Dealer*, Cleveland, Ohio, November 30, 1990, p. A1; and "Issuing Bonds for a Stadium in Michigan Being Considered Despite 1986 Tax Law," *MuniWeek*, vol. 3, no. 10 (March 11, 1991), p. 8.

6. A detailed review of recent experience with the volume caps can be found in Dennis Zimmerman, "The Volume Cap for Tax-Exempt Private Activity Bonds: State and Local Experience in 1989," Washington, D.C.: Advisory Commission on Intergovernmental Relations, July 1990.

7. Other concerns include the impact on the cost of overall state and local finance, and any influence on the overall productivity of the capital stock.

William P. Osterberg is an economist at the Federal Reserve Bank of Cleveland. The author would like to thank Randall Eberts and James Thomson for helpful comments.

The views stated herein are those of the author and not necessarily those of the Federal Reserve Bank of Cleveland or of the Board of Governors of the Federal Reserve System.

Federal Reserve Bank of Cleveland
Research Department
P.O. Box 6387
Cleveland, OH 44101

Address Correction Requested:
Please send corrected mailing label to the above address.

Material may be reprinted provided that the source is credited. Please send copies of reprinted materials to the editor.

BULK RATE
U.S. Postage Paid
Cleveland, OH
Permit No. 385