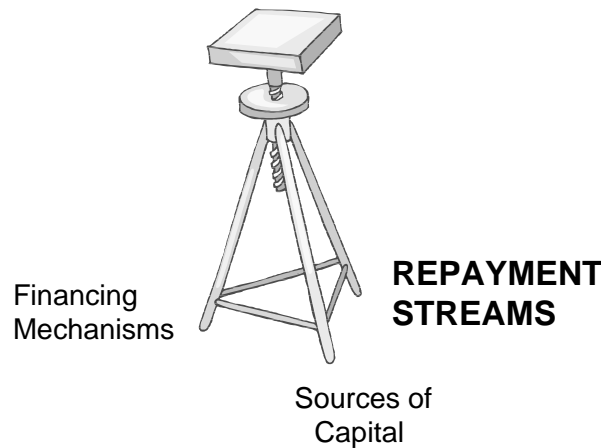


## 6. REPAYMENT SOURCES AND PAYGO CAPITAL

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### 6.1 INTRODUCTION

Despite recent advances in the application of debt financing to transit investment, much of the investment in capital by transit properties continues to be made on a pay-as-you-go basis. Transit systems use a combination of federal, state, and local sources, as well as direct system revenues, to fund major capital projects. Alternatively, when capital investments are debt financed, repayment streams must be identified and secured. This chapter describes sources of revenue for both pay-as-you-go funding and to serve as repayment sources for debt financing.



Categories of revenue addressed in this chapter include

- Revenue streams available to back limited recourse tax or special revenue debt obligations and for PAYGO—including sales and other dedicated tax revenues, tax increment financing revenues, and federal and other grant funds; and
- Revenue streams available to back system operating (or farebox) pledges and for PAYGO—including farebox revenue, concessions and joint-development revenues, advertising revenues, and revenues derived from leasing arrangements.

In addition to serving as the source of repayment for debt obligations, each of these revenue streams also may be used to fund capital investments on a pay-as-you-go basis.

### 6.2 REPAYMENT SOURCES FOR LIMITED RECOURSE OBLIGATIONS SECURED BY REVENUES OTHER THAN SYSTEM OPERATING REVENUES

Common sources of revenue for the repayment of limited recourse obligations include

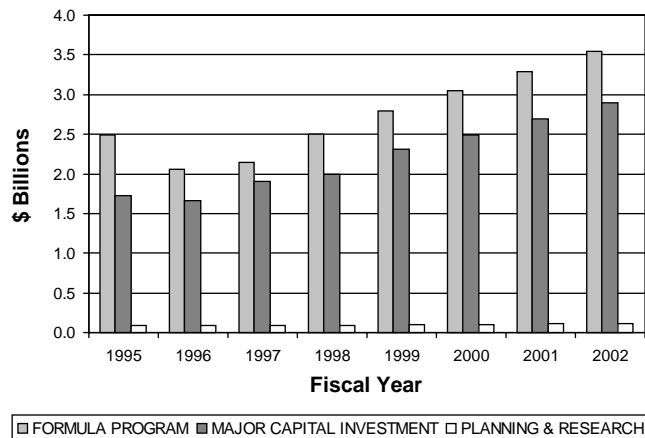
- Federal and other grant funds;
- State and local dedicated tax revenues, including sales taxes, income taxes, property taxes, tax increment financing, special assessments, and impact fees; and
- Other miscellaneous receipts.

As noted above, not only may these sources be used for the repayment of debt obligations, they also may be utilized for the funding of capital items on a pay-as-you-go basis. The discussion that follows considers each of these funding sources in the context of its appropriateness as a repayment source for debt or lease transactions as well as for direct funding of capital projects.

## Federal Funding

As demonstrated in Chapter 2, federal capital funding has grown substantially since the late 1980s (also see Figure 6-1). There are three key components of the federal program that are particularly important as transit agencies move toward using federal funds to secure debt financings for capital investment. These components are (1) guaranteed funding provisions; (2) FFGAs; and (3) eligibility of bond proceeds as local match.

**Figure 6-1. Federal Appropriations, Fiscal Years 1995–2002 (Billions of Dollars)**



## Guaranteed Funding and Flexibility

TEA-21 provides \$41 billion in transit funding between 1998 and 2003, \$36 billion of which is guaranteed.<sup>1</sup> The trend in federal funding guarantees for transit between 1998 and 2003 is illustrated in Table 6-1.

TEA-21 funds minimal amounts for planning, research, and administration, as well as for operating funding for urban areas with fewer than 200,000 people and non-urbanized areas. The bulk of the federal funding guarantees illustrated in Table 6-1 are dedicated for public transportation capital projects.

Increases in funding flexibility also have helped state and local agencies pay for the investments and upkeep of their transit agencies. ISTEA allowed certain highway funds—such as the STP, CMAQ Program, and Interstate Substitution-Highways Program funds—to be used for transit pur-

**Table 6-1. Total Guaranteed Federal Transit Funding, 1998–2003 (Billions of Dollars)<sup>2</sup>**

|                           | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | Total  |
|---------------------------|-------|-------|-------|-------|-------|-------|--------|
| <b>Guaranteed Funding</b> | \$4.8 | \$5.4 | \$5.8 | \$6.3 | \$6.7 | \$7.2 | \$36.3 |

<sup>1</sup> [www.fhwa.dot.gov/tea21/sumcov.htm](http://www.fhwa.dot.gov/tea21/sumcov.htm)

poses (see discussion in Chapter 2). TEA-21 has further increased funding flexibility, particularly in terms of requirements for non-federal match for transit projects. For instance,

- The fair market value of land acquired by a state or local government may now be applied to the non-federal share of project costs,
- Funds from other federal agencies may now be applied to the non-federal share of transportation enhancement projects, and
- Funds allocated to federal land management agencies or the federal lands highway program may now be applied to the non-federal share of certain projects.

Advance Construction Authority provisions further support transit systems' ability to tap into future federal funding to support project commitments and bonding initiatives (see early example of Boston Engine Terminal Project in sidebar).

## FFGAs

A federal program for providing capital funds for new start transit projects has been in existence since 1974. The current FFGA program is funded through the Mass Transit Account of the Highway Trust Fund. Under Section 5309, Congress allocates 40 percent of funds appropriated for capital programs to new "New Start" projects.

The annual appropriation is part of the federal budget process, with funding for individual projects appropriated on a line-item basis. Following the appropriation, a Notice of Award is granted to the grantees by FTA, and each year the grantees submit applications for funds.

An FFGA is a multi-year federal funding arrangement under which FTA spreads its grant commitment over a 6- to 10- year or longer time period, to reduce the annual burden of funding large capital projects. FTA's funding schedule is not an irrevocable pledge but rather a best efforts target, subject to annual appropriations by Congress. In recent years, FFGA grantees have begun borrowing against their grants receivable to meet current project construction and acquisition requirements (refer back to discussion of grant anticipation financing in Chapter 5).

### **Boston Engine Terminal Advance Construction Project**

**Background:** MBTA faced a situation in 1995 in which it needed to undertake a project that was too big and too resource-intensive to begin without assurances of funding for the entire project. The facility provides repairs and maintenance for MBTA's locomotives and commuter railcars.

**Advance construction request:** FTA approved MBTA's request for Advance Construction Authority, making the facility's overhaul eligible for grant reimbursement in subsequent years.

**Financing:** With FTA approval, MBTA was able to issue bonds to proceed with the project. The cost of the bonds is reimbursable in the same way as construction, including interest costs.

**Benefits:** The project was completed in 1997, at least 4 years prior to when it would have otherwise been completed. Based on an annual inflation rate of 5 percent, there was a \$34 million savings. The facility also is saving MBTA millions in vehicle maintenance and repair costs based on the more efficient facility. In addition to financial benefits, there were environmental benefits based on soil remediation activities and on ending years of oily runoff into Boston Harbor.

**Source:** FTA presentation on Innovative Financing Initiative, [www.fta.dot.gov/library/policy/inifr/strcl.htm](http://www.fta.dot.gov/library/policy/inifr/strcl.htm)

<sup>2</sup> [www.fhwa.dot.gov/tea21/](http://www.fhwa.dot.gov/tea21/)

Every approved FFGA-funded project ultimately has received the total amount of federal funds (with the exception of two canceled projects). The funds, however, have been delayed in a few instances. Annual appropriations may vary from the initial FFGA schedule, but the total amount of federal funding has never been amended (see Chapter 5 and Technical Annex 2 for a discussion of the credit evaluation of FFGA-backed financings).

## Federal Bond Provisions

TEA-21 allows transit operators to issue bonds secured with transit system revenues and to use the proceeds from the sale of bonds as part of local matching funds for a transit capital project. This increases flexibility and local funding for transit capital projects. Any transit capital project funded under Sections 5307 and 5309 is eligible (see Chapter 5 for further discussion of system-based transit revenue bonds).

## State and Local Dedicated Taxes and Fees

Despite greater federal funding and broader eligibility, transit agencies are increasingly supplementing federal funds with other revenue sources to help meet growing capital needs. Accordingly, state and local dedicated transit funding has increased significantly; in 2000, these funds totaled \$2.5 billion and, together, represented 26 percent of all transit system capital funding (also see Figure 6-2).<sup>3</sup>

Dedicated funding can come from many sources, including sales and use taxes, utility taxes, property taxes, motor fuel taxes, mortgage recordation taxes and fees, and business taxes. Some jurisdictions also impose impact fees, special assessments, or tax increment financing approaches to raise needed revenues. Others have experimented with more unconventional sources, such as lottery revenues, revenues from the settlements with the tobacco companies, and the like. The range of funding sources used around the country is extremely diverse, and new techniques are developed on an ongoing basis.

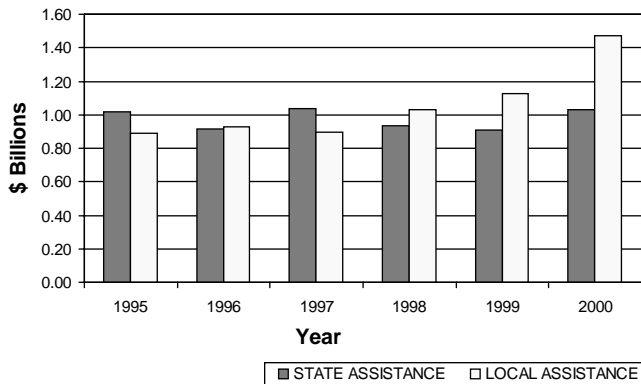
The key for transit systems is to understand the circumstances in the locality and state within which the transit system operates and to develop strategies to take advantage of the strongest opportunities. This requires working closely with local and state officials to articulate the needs of the transit system and to help identify the strongest and most secure revenue streams possible.

Following is a brief introduction to the more common state and local dedicated taxes and charges that have been made available to transit systems to date. It is important to remember, however, that the relevant set of options is driven most by local circumstances (e.g., constitutional and statutory provisions, public preferences, and current financial conditions) and that plans must be developed and pursued with those conditions firmly in mind.

|   |
|---|
| <p style="text-align: center;"><b>Example Mix of Dedicated Revenue Streams:<br/>Tri-Met (Oregon)</b></p> <ul style="list-style-type: none"><li>◆ Federal Funds</li><li>◆ Employer Payroll Tax</li><li>◆ Lottery Revenues</li><li>◆ Employer Payroll Tax</li></ul> |
|---|

<sup>3</sup> APTA.

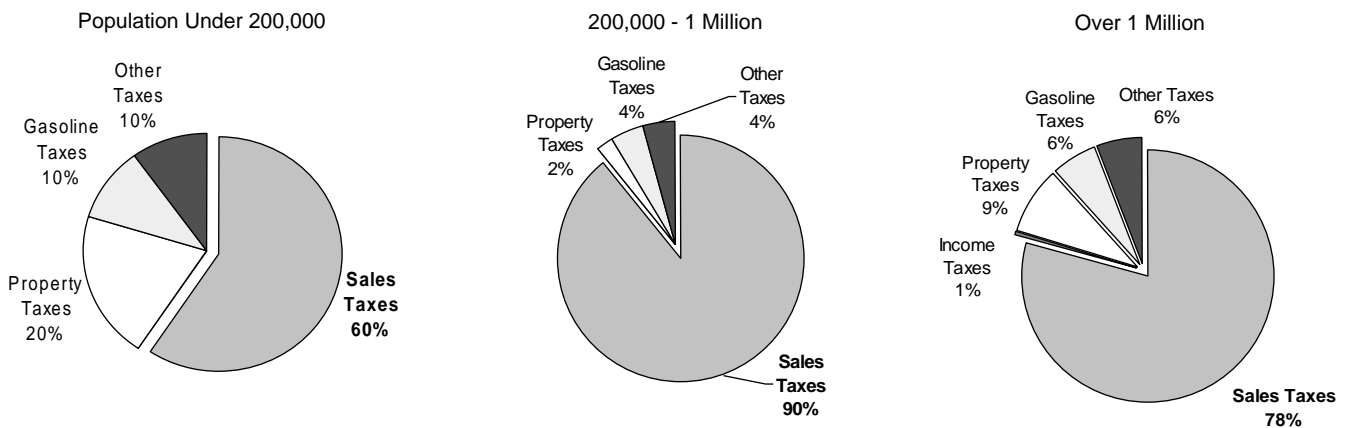
**Figure 6-2. State and Local Capital Funding, 1995–2000 (Billions of Dollars)**



### Sales Taxes

Dedicated sales taxes for funding transit projects are increasingly common, particularly for larger mass transit agencies (see Figure 6-3). Two types of revenue streams back sales tax revenue bonds: a dedicated tax imposed locally or a dedicated allocation of sales tax receipts collected by the state.<sup>4</sup>

**Figure 6.3. Proportion of State, Local, and Directly Generated Funds Derived from Sales Tax—2000**



The economic and political environment must be considered when the use of sales tax-backed revenue bonds is proposed. The level of sales tax revenue depends on population, income, and employment levels. A robust economy ensures high sales revenues. Regional economic diversity also ensures that a decline in one sector is buffered by growth in another.

The amount of sales tax revenue that can be dedicated for mass transit purposes depends on the local political climate. Local residents often support sales taxes because they generate revenue

<sup>4</sup> Moody's Investors Service, *The Credit Implications of Increased Tax Subsidization of Mass Transit Systems*, p.8.

from purchases made by nonresidents and help limit property tax rates. The imposition or extension of sales taxes also often requires state legislation.

## **Income, Wage Taxes, and Business Taxes**

The income tax is generally linked to the level of economic activity in a state. There is a fairly direct link between income generation and transit to the extent that a good transit system contributes to economic growth. Therefore, a good case can be made for using the income tax to finance transit investments. However, the income tax is generally not a popular tax, and legislative action would be required to raise the tax rate or impose a new tax. A companion to the income tax is a wage tax imposed by some metropolitan areas to capture income from commuters, based on the services provided by the city during their stay in the city for work. Again, transit would be an appropriate recipient of revenues from such a tax. Less than  $1/2$  percent of state, local, and directly generated funds are derived from income taxes.<sup>5</sup>

## **Property Taxes, Special Assessments, and Tax Increment Financing**

There are a number of mechanisms used by local jurisdictions to assess taxes against the value of real and personal property. This includes the general property tax; special assessments on a particular subset of properties for a particular period of time; and tax increment financing (TIF), whereby the incremental tax receipts attributable to a public investment are captured and used to pay for that investment.

**General Property Taxes.** General property taxes are the primary revenue source for most local governments. The revenues derived from general property taxes are generally committed to schools and other local government purposes and, thus, are challenging to claim for new purposes. Examples of transit agencies that receive financial support directly from property taxes include systems in Seattle and Minneapolis. As part of a property tax relief initiative, the State of Minnesota, however, just recently revoked the ability of the transit system to benefit from local property taxes, replacing this source of revenue with state-level motor vehicle sales tax revenues (see Figure 6-4 for an illustration of the relative contribution of property taxes to transit systems of all sizes).

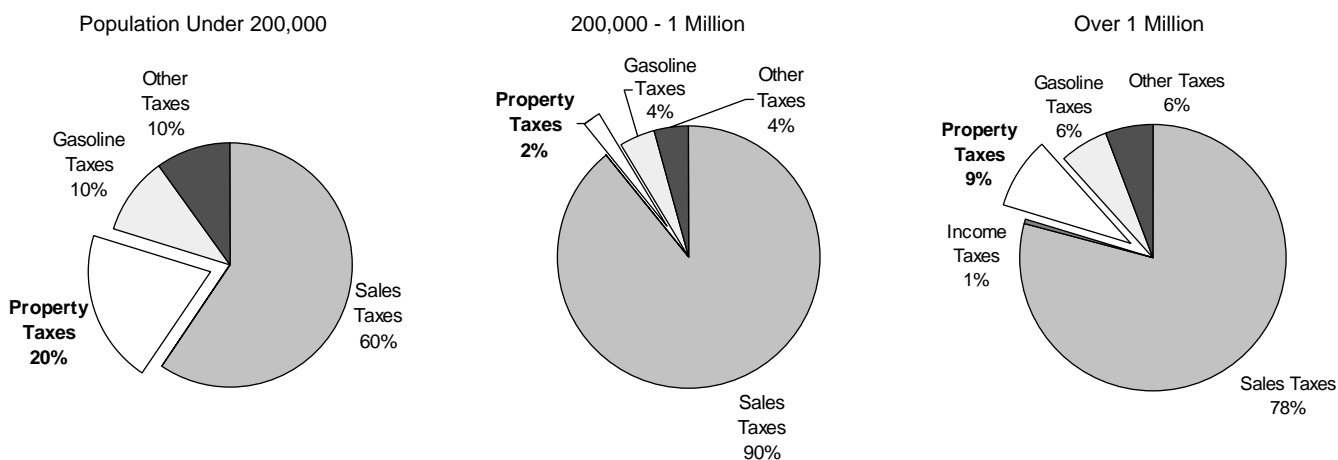
**Special Assessments.** Special assessments and TIF mechanisms present potentially viable alternatives to the general property tax. In their own way, each is targeted to a subset of tax receipts and thus more likely to be acceptable. Special assessments are charges on properties that derive unique benefits from specific improvements and are levied to defray the costs of those improvements. In some instances, a special assessment district is established for the purpose of assessing the special assessment. Special assessments also are sometimes outside a state or jurisdiction's constitutional and statutory requirements that govern general property taxes. Special assessments are generally assessed as a one-time charge but are collected through the tax system over a specified number of years.

**TIF.** TIF is premised on the expectation that property values (and thus, property tax revenues) will increase as a result of a specific investment or improvement. Any increases in property tax revenues can be captured and retained within the established TIF district to help pay for the costs of the improvement. In this manner, the TIF structure captures previously authorized (but incremental) tax revenues rather than levying new taxes or fees to generate revenue.

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<sup>5</sup> U.S. DOT, FTA, National Transit Database.

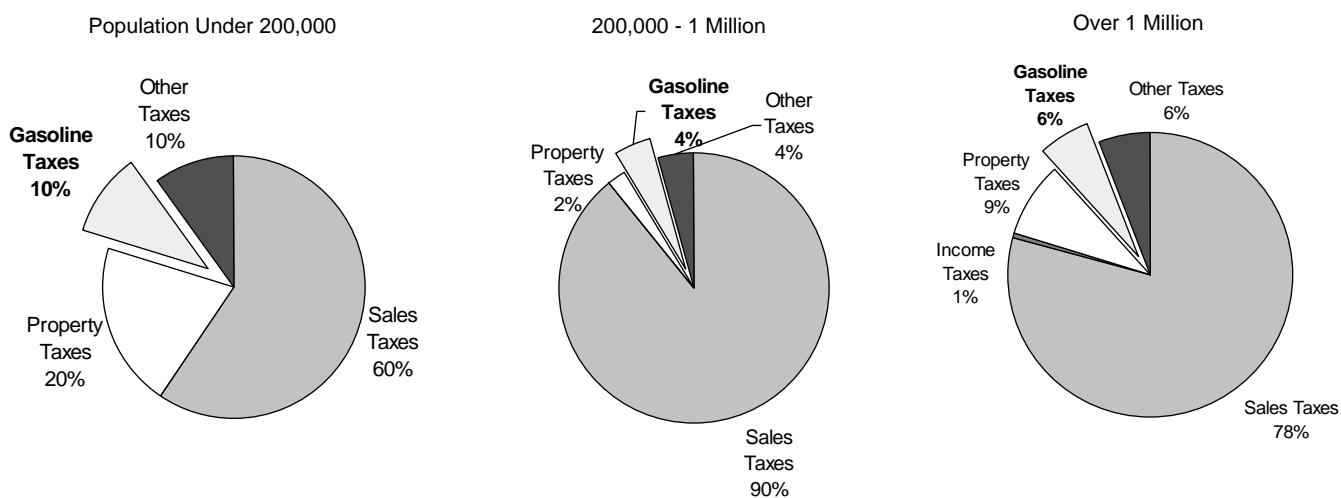
**Figure 6.4. Proportion of State, Local, and Directly Generated Funds Derived from Property Taxes—2000**



### Motor Fuel Taxes

Motor fuel taxes are the primary source of funding for investments in transportation at the national level. Similar funding has been made available directly to transit systems through state dedication in a number of states. Not only are motor fuel taxes productive in the sense of generating significant revenue with a small increment, they have the dual potential effect of increasing transit ridership by discouraging automobile usage. This is a double-edged sword: if such disincentives work very well, the demands on the transit system increase while the funding source decreases. For this reason, reliance on motor fuel tax revenues in the long run should be carefully monitored. Also, many states have constitutional restrictions against the use of higher-user revenues (including motor fuels taxes) for non-highway purposes. Examples of transit systems that receive significant dedicated motor fuel tax revenues include those in Chicago; Detroit; Pittsburgh; New York; and Norfolk, Virginia (also see Figure 6-5 for an illustration of the relative contribution of motor fuel [gas] taxes to transit systems of all sizes).

**Figure 6-5. Proportion of State, Local, and Directly Generated Funds Derived from Gasoline Taxes—2000**



## Impact Fees

A growing number of communities charge developers to compensate for the impacts of their developments. Although there have been court challenges to some of these fees, they have for the most part survived such challenges—with the caveat that the improvements they pay for directly benefit the development (see sidebar example).

### San Francisco Transit Impact Development Fee

**Description:** The impact fee was designed to recover the operating subsidy and capital expansion costs of the San Francisco Municipal Railway (Muni).

**Basis for the Fee:** Eligible costs included (1) additional rolling stock, services, personnel, fuel, electricity, and facilities and (2) maintenance, repair, replacement, and operation of the vehicles and facilities.

**Program Structure:** The fee was applied to office development to offset the cost of increased ridership during peak periods. By charging a fee only for office space, San Francisco encouraged mixed-use developments requiring less travel. The fee ordinance clearly defines a particular area of downtown as the fee district. If the fee is not paid on time, Muni receives a lien on the property for the amount of the fee owed, plus interest and penalties.

**Fee Structure:** The fee is a one-time fee charged to cover the cost of providing transit services over the 45-year useful life of an office building, with the maximum fee per gross square foot set at \$5.00. Although the fee was intended to cover the full incremental cost, in reality it only covers a portion of this cost.

Payment of the fee is due when a building reaches 50-percent occupancy or issuance of the first temporary permit or final certificate of occupancy, whichever comes first. Installment payment provisions are offered to the developer, with interest.

**Legal Considerations:** San Francisco's impact fee has withstood several legal challenges. Because of the likelihood of legal challenge, impact fees must be carefully structured and legal challenges anticipated.

**Source:** *TCRP Report 31: Funding Strategies for Public Transportation, Volume 2: Casebook*, Transportation Research Board, 1998; p. 57.

## Toll Revenue Credits

Under a provision originally instituted as part of ISTEA, toll revenues on public roads and bridges expended for capital investment may count as local match—referred to as “soft match”—for federal grant funds. Although not directed specifically at transit investments, in certain circumstances this allows the local matching share that would otherwise be required to match a transit grant to be used for other projects.

Toll credits may be used for local match under the following circumstances:

- The toll revenues are used for transportation capital investment (not operating expenses), and
- The soft match in 1 year is counted as the amount of toll revenue used for transportation capital investment in that year (there is no carryover).

Based on local circumstances, a project's local match may be banked or used as matching funds for a discretionary grant or used to facilitate the early completion of other capital projects.<sup>6</sup> This mechanism does not explicitly create new revenues but rather provides flexibility, such that funds that would have been required to match federal funds can be used for other purposes.

NJT used toll credits to cover the non-federal share of project costs for a 1-mile, \$200 million extension of the Newark City Subway light rail line, which will ultimately connect Newark and Elizabeth.<sup>7</sup>

### Summary of Advantages and Disadvantages of State and Local Revenue Sources

As discussed in the preceding sections, there are a variety of important considerations to the selection of potential state and local revenue sources for transit capital investments. Table 6-2 offers a summary of the general advantages and disadvantages of the most commonly used state and local sources.

Beyond these general considerations, transit system managers often use some form of the following criteria to select from among the alternative revenue sources:

- **Revenue yield**—a measure of the level of revenues that can be generated from a given increment of a tax or charge (e.g., dollars per sales tax percentage or dollars per penny of a gas tax);
- **Ease and efficiency of collection**—with the ease of collection affecting the net revenues associated with implementing the new or supplemental charge;
- **Equity**—a measure of the degree to which those who are subject to the new charge are those who will benefit from the investment, either directly or indirectly; and
- **Legal and institutional barriers**—the extent to which there are statutory or administrative impediments to implementing a particular tax or charge.

In particular circumstances, there are a number of additional considerations that come into play for the transit agency and its funding partners.

### 6.3 REPAYMENT SOURCES FOR SYSTEM PLEDGES

Farebox revenues generate the largest portion of transit operating revenue, but because they most often are dedicated to covering operating costs, they are generally not available for capital funding. Other system revenues—such as those derived from concessions, advertising, leasing of transit property, and joint-development arrangements—also contribute to transit agency sources of revenue. Finally, operating subsidies from the jurisdictions receiving transit service can contribute revenues for debt service.

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<sup>6</sup> U.S. DOT, FTA, *Innovative Financing Handbook*, p. 15.

<sup>7</sup> U.S. DOT, FTA, *Innovative Finance Primer*, p. 37.

**Table 6-2. Evaluation of Sample Candidate State and Local Revenue Sources<sup>8</sup>**

| Revenue Source                   | Primary Advantages   | Primary Challenges   |
|----------------------------------|--|--|
| Sales tax (general and targeted) | <ul style="list-style-type: none"> <li>○ Generates significant revenue at low rates</li> <li>○ Easy to administer</li> <li>○ Successfully implemented by many transit agencies</li> <li>○ Strong revenue pledge for debt issues</li> </ul> | <ul style="list-style-type: none"> <li>○ Generally requires state action</li> <li>○ Hurts retailers</li> <li>○ Depending on structure, regressive</li> </ul>   |
| Wage/Income tax                  | <ul style="list-style-type: none"> <li>○ Generates significant revenues at low rates</li> <li>○ Long-run growth potential</li> <li>○ Wage tax can capture commuter beneficiaries</li> </ul>  | <ul style="list-style-type: none"> <li>○ Unpopular with voters and the business community</li> <li>○ Subject to economic cycles</li> <li>○ More challenging to administer if divorced from regular state tax collection process</li> </ul>             |
| Business tax(es)                 | <ul style="list-style-type: none"> <li>○ Employers pay for labor force mobility</li> </ul>   | <ul style="list-style-type: none"> <li>○ Unpopular with business</li> <li>○ Disincentive for business location decisions (counter to tax incentive programs)</li> </ul>  |
| Property tax                     | <ul style="list-style-type: none"> <li>○ Broad coverage of business and individuals</li> <li>○ Easy to administer</li> <li>○ Generates substantial revenues at low rates</li> </ul>  | <ul style="list-style-type: none"> <li>○ Often subject to voter approval</li> <li>○ Unpopular with many taxpayers</li> <li>○ Heavy competition from school systems and other current beneficiaries of tax</li> </ul>                                   |
| Tax increment financing          | <ul style="list-style-type: none"> <li>○ Revenue tied to economic development</li> <li>○ Can tie to transit development specifically</li> <li>○ No direct new effect on taxpayers</li> </ul>   | <ul style="list-style-type: none"> <li>○ May require state law change, voter approval, or both</li> <li>○ Limited and less certain revenue</li> <li>○ Complex administration</li> <li>○ Competition from school and other local governments</li> </ul> |
| Special assessments              | <ul style="list-style-type: none"> <li>○ Revenue tied to development</li> <li>○ Direct beneficiaries of improvement pay</li> <li>○ Small base of opposition</li> </ul>   | <ul style="list-style-type: none"> <li>○ May run counter to location incentive program</li> <li>○ Limited revenues</li> <li>○ Complex administration</li> </ul>  |
| Impact fees                      | <ul style="list-style-type: none"> <li>○ Revenue tied to development</li> <li>○ Direct users pay</li> <li>○ Small base of opposition</li> </ul>  | <ul style="list-style-type: none"> <li>○ Substantial history of legal challenge</li> <li>○ Limited revenues</li> </ul>   |
| Motor fuel tax                   | <ul style="list-style-type: none"> <li>○ Possible deterrent to driving</li> <li>○ Less visible to taxpayers</li> <li>○ Significant revenues from small increment</li> <li>○ Easy to administer</li> </ul>                                  | <ul style="list-style-type: none"> <li>○ Requires state action</li> <li>○ Subject to decline in future due to improved fuel economy</li> </ul>   |
| Vehicle registration fee/tax     | <ul style="list-style-type: none"> <li>○ Possible deterrent to driving</li> <li>○ Accepted by automobile owners</li> <li>○ Easy to administer</li> </ul>   | <ul style="list-style-type: none"> <li>○ Requires state action</li> <li>○ No direct link to transit</li> <li>○ Regressive, depending on structure</li> </ul>   |
| Lottery proceeds                 | <ul style="list-style-type: none"> <li>○ Significant revenue potential</li> <li>○ Public acceptance—discretionary expenditure</li> </ul>   | <ul style="list-style-type: none"> <li>○ Regressive</li> <li>○ Competition with other potential uses</li> <li>○ Uncertainty of annual revenue generation</li> </ul>  |

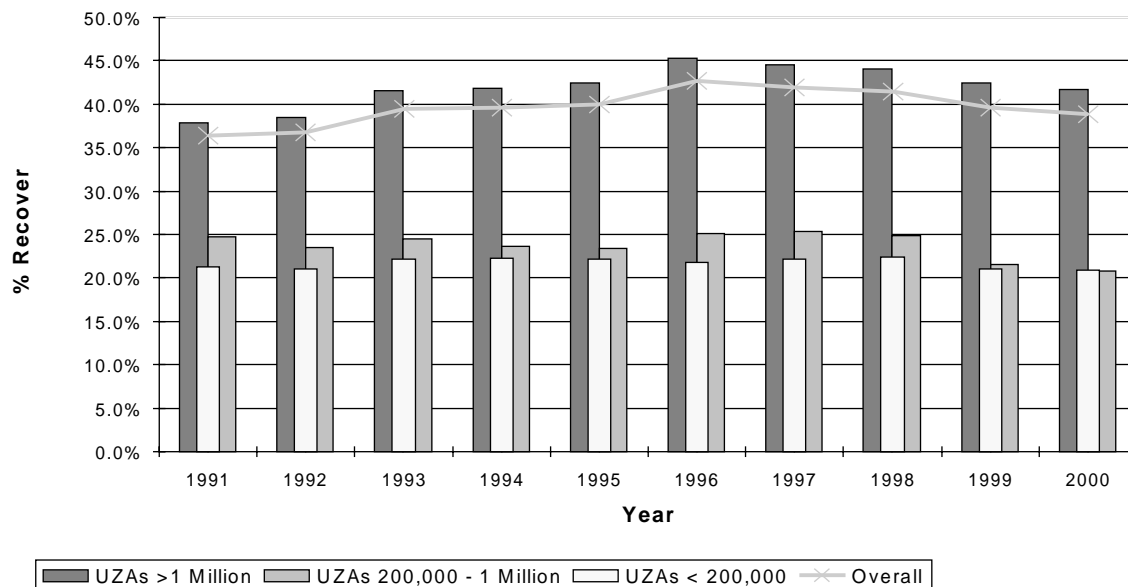
<sup>8</sup> Adapted from *Public Transit Financing Options for Southeast Michigan*, December 1997, prepared for Metropolitan Affairs Coalition by Public Sector Consultants, Inc., Lansing, Michigan.

The discussion that follows considers each of these funding sources in the context of its appropriateness as a repayment source for debt or lease transactions, as well as for direct funding on a pay-as-you-go basis of capital projects.

## Farebox Revenues

Farebox revenues compose the largest portion of transit operating revenue. The national farebox recovery ratio—the percentage of operating costs covered by fares—increased in the first half of the 1990s and then decreased slightly in the second half, with the overall recovery ratio going from 36 percent in 1991 to nearly 39 percent in 2000 (see Figure 6-6 for a breakdown of farebox recovery ratios by population size).<sup>9</sup>

**Figure 6-6. Farebox Recovery Ratios by Urbanized Area Size, 1991–2000**



Despite the slight increase over recent years, farebox revenues are not adequate to cover operating costs and, consequently, these revenues generally are not available as a source of capital funding. They may, however, be available to fund capital investments in instances in which the transit agency benefits from funding from outside sources to cover operating costs (refer to discussion of farebox revenue bonds in Chapter 5).

## Ancillary System Revenues

Transit agencies can take advantage of system-generated revenues beyond the farebox through negotiation with the private sector. Opportunities for transit systems to raise funds through use of their property include concessions, advertising, leasing right-of-way, and joint development.

<sup>9</sup> U.S. DOT, FTA, National Transit Database.

## Concessions

With transit systems serving thousands of people everyday, they provide ideal space for concessionaires searching for a reliable market. Transit agencies can charge high rents for space at transfer stations or those serving high-density areas such as central business districts. Concessionaires also can contribute to station improvements.

## Advertising

Allowing organizations to advertise on transit property also boosts system revenue. Popular advertisement space includes stations, rail car interiors, and bus interiors and exteriors. Advertising in transit systems has increased significantly since the early 1990s.

Advertising revenues can help pay for some of the service provided by transit agencies. For example, advertising has paid for approximately 1 percent of the Chicago Transit Authority's operating costs, effectively paying for service on several routes.<sup>10</sup> Advertising also can provide greater publicity for the transit system. For example, advertisements about certain events or places can include references to the transit system as a means to get there.<sup>11</sup>

## Joint-Development Revenues

Another revenue-generating option for transit agencies is joint development of transit properties. By soliciting private participation in joint-development projects, transit agencies can benefit financially. Not only can they generate new revenues from leases and increased ridership, through the receipt of in-kind contributions of assets from the private partners, transit agencies can avoid costs that would otherwise be borne by the agency.

To date, the most common applications of joint-development arrangements have been for revenue generation and cost sharing rather than for the direct funding of new capital investments.

### Wrapped Buses

Wrapped transit vehicles are becoming increasingly popular and generate higher advertising revenues for transit agencies. For example, Citibus in Lubbock, Texas once received only \$300 annually in advertising revenue. Introduction of wrapped buses raised annual revenue to \$150,000. A traditional advertisement on a bus in Chicago generates \$260 per month, while a wrapped bus generates \$7,000 per month.

In addition to boosting advertising revenues, wrapped buses lower the maintenance costs typically incurred by transit agencies. A wrapped vehicle does not need to be painted and wrapping material also insulates the vehicles, lowering operating costs related to heating and air conditioning.

**Source:** *TCRP Report 31: Funding Strategies for Public Transportation, Volume 2: Casebook*, Transportation Research Board of the National Academies, 1998; p. 185.

### Benefits to Transit Agencies of Joint Development

- Increased ridership
- Ancillary (lease and other) revenues
- Enhancements to transit facility
- General economic and community development

<sup>10</sup> *TCRP Report 31: Funding Strategies for Public Transportation, Volume 2: Casebook*, Transportation Research Board of the National Academies, 1998; p. 178.

<sup>11</sup> *TCRP Report 31: Funding Strategies for Public Transportation, Volume 2: Casebook*, Transportation Research Board of the National Academies, 1998; p. 181.

**Federal Grant Provisions and Joint Development.** Joint-development projects have been eligible for federal grant funding for more than 25 years, and numerous projects have been developed with varying degrees of success. Prior to 1997, transit property purchased with federal funds could only be used for transit-related activities. A policy change, however, allowed transit agencies to retain the revenues from joint development on land purchased with federal funds. Joint-development projects involving transit property must include a transit element, involve development or other private investment, and allow easy transit access.<sup>12</sup> Real estate is the most common transit asset involved in these projects.

### Joint Development in the WMATA System

Over the years, contributions from joint-development projects to WMATA have been substantial. In response to the high level of demand from developers and understanding the benefits that stem from joint development, WMATA established formal joint-development procedures in 1994, although the joint-development program had been in existence since 1985 and joint-development projects had been undertaken as part of the initial development of the Washington Metro system.

In conjunction with local jurisdictions, WMATA prepares an annual Joint Development Work Program, detailing all joint-development sites and describing their current status. Thus, WMATA has learned to approach joint-development opportunities actively rather than to waiting for developers to seek out potential sites on their own initiative. WMATA's Joint Development Program seeks to promote projects that achieve the following goals:

- ◆ Promote transit-oriented development by giving priority to joint-development proposals that contain the following smart growth development principles:
  - Reduce automobile dependency;
  - Increase pedestrian/bicycle–originated transit trips;
  - Foster safe station areas;
  - Enhance surrounding area connections to transit stations, including bus access;
  - Provide mixed-uses development, including housing in compliance with local regulations;
  - Offer the opportunity to obtain goods and services near transit stations; and
  - Offer active public spaces;
- ◆ Attract new riders to the transit system by fostering commercial and residential development projects on WMATA-owned or -controlled land and on private properties adjacent to Metro stations;
- ◆ Create a source of revenue for WMATA to operate and maintain the transit system by expediently negotiating joint-development agreements between WMATA and public- or private-development entities; and
- ◆ Assist WMATA local jurisdictions to recapture a portion of their past financial contributions and to continue making subsidy payments by expanding the local property tax base and adding value to available local revenue.

**Source:** <http://www.wmata.com/bus2bus/jd/jointdev.cfm>

<sup>12</sup> *TCRP Report 31: Funding Strategies for Public Transportation, Volume 2: Casebook*, Transportation Research Board of the National Academies, 1998; p. 199.

FTA continues to reaffirm its commitment to joint-development projects through its Livable Communities Initiative, which increases the options transit agencies have in pursuing these projects by making the definition of eligible joint development more flexible. In conjunction with an improving economy and associated increases in real estate prices, the marketability of joint developments has improved.

Transit properties may sell properties to participating developers as long as there are reasonable guarantees that transit systems have access to the respective facilities.<sup>13</sup> That is to say, the developments must be “physically and functionally related to transit.” Joint-development projects are subject to all federal requirements. Transit agencies also remain financially responsible to FTA for the transit facilities. FTA’s stated policy is to review joint-development proposals on a case-by-case basis.<sup>14</sup>

**Structure of a Joint-Development Transaction.**<sup>15</sup> Joint development involves a partnership or joint venture between a transit agency and a private developer. Risks related to the development are generally either shared between the private partner and the transit agency or borne singly by one or the other.

An example of a typical joint-development transaction involves a park-and-ride lot owned by the transit agency for which a private developer agrees to construct a parking structure on the parking area in exchange for a portion of the lot. The increased development is expected to generate increased ridership.

Common legal issues that are encountered in structuring a joint-development transaction include

- Issues of statutory authority, including public bidding requirements;
- Limitations on funding for joint development from federal, state, and local sources; and
- Tax law restrictions on funding mechanisms.

## Shared-Resource Arrangements

Shared resources are a subset or offshoot of joint development based on the value of transit system’s right-of-way to telecommunications firms. Transit properties have opportunities as a result of increased market demand for telecommunication advances such as fiber optic cable and wireless communications. These services support high-speed Internet connection and mobile phone service, leading private telecommunications companies to build new and existing networks. At the same time, government agencies, including local and regional transportation and transit agencies, have been establishing networks to support ITS and other communication needs.

These developments have fostered a new form of public-private partnerships known as “shared-resource arrangements.” These arrangements are simply the shared use of public transit, rail, and highway rights-of-way (ROW) for telecommunications equipment and other utilities.

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<sup>13</sup> U.S. DOT, FTA, *Innovative Financing Techniques for America’s Transit Systems*, 1998.

<sup>14</sup> U.S. DOT, FTA, *Innovative Financing Handbook*.

<sup>15</sup> *TCRP Legal Research Digest 13: Report on Innovative Financing Techniques for Transit Agencies*, Transportation Research Board of the National Academies, 1999; p. 1.

### **BART Telecommunications System**

**Description:** Shared use of San Francisco's BART assets for fiber optic telecommunications is an example of a shared-resource arrangement along transit right of way.

**Transaction Structure:** In 1994, BART solicited proposals from private developers to install, maintain, manage, and market fiber optic telecommunications under a long-term license agreement.

The private partner (Metropolitan Fiber System Network Technologies, Inc. [MFSNT]) entered into a lease agreement with BART with a principal amount of \$45 million. MFSNT is to provide all of the equipment and engineering and construction management services. BART issued a competitive procurement for installation of the new telecommunications system. In the event that the bid prices were higher than the \$5 million, MFSNT agreed to pay the difference; in the event that bids were lower, MFSNT agreed to reduce BART's obligation.

BART entered into a 15-year equipment lease-purchase contract with MFSNT for the system. The private partner retains ownership of the system for the term of the contract, at which time ownership transfers to BART. BART also has an option to purchase the equipment during the term of the contract.

MFSNT also owns and operates the conduit system in BART's right of way under a 15-year license agreement. Installation of the conduit system was competitively bid. In return, BART shares in the revenue generated by the conduit system. At the end of the term of the agreement, ownership transfers to BART.

**Benefits to Transit Agency:** BART benefited in this case in the form of shared revenues. The private partner rented access to fiber optic conduit to telecommunications carriers and made lease payments to BART. BART also received access to the fiber network to support its own telecommunications system.

**Benefits to Private Partner:** Fiber optic telecommunication system capacity for commercial use.

#### **Legal Issues and Challenges Overcome:**

- Public bidding requirements
- Need for California DOT (Caltrans) consent for joint commercial use because some of the right of way had been purchased with state funds
- Backstop of BART's general fund revenues needed in the event that sufficient revenues were not generated to repay the tax-exempt financing
- Whether use of the right of way by the private partner was restricted by existing bond covenants

**Source:** *TCRP Legal Research Digest 13: Report on Innovative Financing Techniques for Transit Agencies*, Transportation Research Board of the National Academies, 1999; pp. 15–16.

Shared-resource arrangements with government agencies allow private partners to negotiate with one partner rather than negotiating with multiple private landowners. This can be particularly beneficial to telecommunications firms that need access to long stretches of uninterrupted ROWs, such as those controlled by transit agencies.

Transit agencies benefit from these arrangements through receipt of compensation either directly in the form of cash payments, or indirectly in the form of in-kind contributions from the private

partner. In-kind contributions often come in the form of products and services related to the systems installed by private partners. These may include access to fiber optic capacity or free mobile communication airtime.

The drawbacks that are associated with shared-resource arrangements often are related to federal, state, and local laws. These may limit the feasibility of these projects.

### Key Questions to Answer Before Entering into Shared-Resource Arrangements

- ◆ Does the agency have authority to receive cash compensation in exchange for access to ROW?
- ◆ Does entering into shared-resource arrangements with private partners preclude the agency from issuing tax-exempt bonds to support related projects?
- ◆ Does the agency have authority to enter into exclusive arrangements with private partners?
- ◆ How are liability and relocation costs shared between the public and private partners?

## Revenues Derived from Other Leasing Arrangements

In addition to the leasing of transit property for the direct use of private partners, as in the case of joint-development and shared-resources arrangements, there are a number of leasing arrangements that are used almost strictly for financial gain—to both the transit operator and the private partner. The applicability and legality of these arrangements continually changes, but there are a number of arrangements that have been put to use by transit systems to generate non-operating revenues. These revenues are derived from the transfer of tax benefits from the public transit agency (for which, as a non-tax paying entity, the tax benefits are of no value) to private entities that can take advantage of depreciation-related tax savings.

Because the resulting payment to the transit agency is most often a single lump sum or a series of payments over a limited time period, such revenues may lend to direct use on one-time capital investments. Given the infrequent nature of these payments, they generally do not lend themselves as repayment streams on outstanding debt obligations, except as they contribute to the general receipts of the agency.

The primary risks in tax-advantaged lease transactions include

- The risk of changes in tax law, prior to deal closing;
- Equipment risks if cars and locomotives are damaged or lost;
- Credit risks for all parties to transaction; and
- Economic risk of early termination of the lease.

Examples of tax-advantaged lease transactions that have been implemented by transit agencies (and that come under a variety of names) include the following:

- **Cross-border leases**—or sale-leaseback arrangements with a foreign partner, including leveraged leases;
- **Domestic sale-leaseback transactions**—also known as Domestic (or “Pickle”) Leases;
- **Lease-leaseback transactions**—including U.S. leasehold interest transactions; and
- **Lease-to-service contracts.**

Domestic lease transactions may not involve facilities originally built with tax-exempt debt whose bonds are still outstanding. This is to avoid issues related to private activity debt limitations (refer to Chapter 3 for a discussion of private activity debt).

The discussion that follows will focus more on those structures that are being considered and used today and less on those that for various reasons have fallen out of favor. The primary reason for changes in preference relates to changes in U.S. and foreign tax law. Following the discussion, Table 6-3 provides a summary of lease transactions reviewed and cataloged by FTA. This exhibit shows not only the range of mechanisms deployed and the assets to which they have been applied, but also illustrates the trend over time in the types of mechanisms being used.

### Cross-Border Leases

Cross-border leasing allows foreign investors to purchase assets from transit agencies in the United States, lease the assets back to the agencies, and receive investment tax credits and depreciation tax benefits under the tax laws of their country. The general benefit to participating transit agencies is that investors (the lessor) pass through a portion of the tax benefit to the agencies. This benefit is often in the form of up-front cash—which can be on the order of between 3 and 7 percent of the cost of the equipment.<sup>16</sup>

The degree to which transit agencies benefit from cross-border leasing is dependent on several factors. These factors include interest rate and currency differentials between those in the United States and those in the home country, length of the lease, tax laws in the investor’s home nation, and transaction costs.

In most cases, the agency finances the acquisition cost of the vehicles or equipment through conventional grant or debt financing and superimposes the lease to generate revenue to the transit agency by essentially selling off the foreign tax benefits. The transit agency will typically deposit most of the proceeds in an escrow account to “defease” or legally extinguish its lease payment requirements, leaving a net residual benefit.

#### Risks of Cross Border–Lease Transactions

- ◆ Lease termination (for default, destruction, or retirement of equipment or changes in tax laws) and related loss payment requirements
- ◆ Bankruptcy of the lessor and resulting loss of equipment in bankruptcy proceedings
- ◆ Bankruptcy of defeasance bank and resulting liability for payments under the lease
- ◆ Retention of tax ownership and risk of transfer taxes and loss of local property tax exemptions
- ◆ United States withholding tax
- ◆ Local tax consequences, including local income, sales/use, and property taxes
- ◆ Foreign tax consequences

For each of these risks, mitigating approaches have been developed, but it is essential to have proper tax and legal advisors in undertaking any cross border–leasing transaction.

<sup>16</sup> *TCRP Legal Research Digest 13: Report on Innovative Financing Techniques for Transit Agencies*, Transportation Research Board of the National Academies, 1999: p. 16.

**Table 6-3. Inventory of FTA-Reviewed Lease Transactions**

| Cross-Border Lease Transactions |                                    |                |                    |                  |             |                        |                    |
|---------------------------------|------------------------------------|----------------|--------------------|------------------|-------------|------------------------|--------------------|
| Date                            | Property                           | Projected Term | Transaction Amount | Transaction Type | Assets      | Net Benefit            | Percentage Benefit |
| Jun-88                          | MBTA, Boston                       | n/a            | \$28,000,000       | CBL-G            | Pax Railcar | \$1,000,000            | 3.6%               |
| Dec-88                          | MBTA, Boston                       | n/a            | \$28,500,000       | CBL-G            | Pax Railcar | \$1,000,000            | 3.5%               |
| Mar-90                          | LACTC, Los Angeles                 | n/a            | \$28,500,000       | CBL-J            | LRTs        | \$1,000,000            | 3.5%               |
| Jun-90                          | MTDB, San Diego                    | n/a            | \$52,339,825       | CBL-G            | LRTs        | \$1,653,607            | 3.2%               |
| Jul-90                          | NJT, Newark                        | n/a            | \$65,692,893       | CBL-D            | Locomot.    | \$2,765,805            | 4.2%               |
| Jan-91                          | BART, San Francisco                | 2009           | \$180,000,000      | CBL-F            | Pax Railcar | \$6,294,344            | 3.5%               |
| May-91                          | Metro, Seattle                     | 1999           | \$38,365,836       | CBL-J            | Dual-Bus    | \$1,088,590            | 2.8%               |
| Jun-91                          | SRTD, Sacramento                   | n/a            | \$17,000,000       | CBL-G            | LRTs        | \$416,900              | 2.5%               |
| Nov-91                          | MDOT, Baltimore                    | 2009           | \$45,000,000       | CBL-D            | LRTs        | \$1,356,500            | 3.0%               |
| Jun-92                          | NJT, Newark                        | n/a            | \$20,000,000       | CBL-D            | Rebuilt CR  | \$653,729              | 3.3%               |
| Sep-92                          | SCRTD, Los Angeles                 | 2000           | \$70,000,000       | CBL-J            | Methan. Bus | \$1,902,897            | 2.7%               |
| Jun-93                          | NJT, Newark                        | n/a            | \$90,000,000       | CBL-D            | Rebuilt CR  | \$3,435,500            | 3.8%               |
| Dec-93                          | NJT, Newark                        | n/a            | \$86,290,000       | CBL-D            | Rebuilt CR  | \$3,401,500            | 3.9%               |
| Mar-94                          | RTD, Denver                        | 2002           | \$20,000,000       | JLL              | Buses       | \$372,012              | 1.9%               |
| Apr-94                          | NJT, New Jersey                    | 2002           | \$72,888,000       | JLL              | Buses       | \$3,471,335            | 4.8%               |
| Aug-94                          | RTD, San Jose                      | n/a            | \$19,685,575       | JLL              | Railcars    | \$580,532              | 2.9%               |
| May-95                          | MTDB, San Diego                    | n/a            | \$28,000,000       | JLL              | Railcars    | \$560,000              | 2.0%               |
| Jun-95                          | MTA/CDOT                           | n/a            | \$118,600,000      | CBL-G            | Railcars    | \$4,742,955            | 4.0%               |
| Jun-95                          | RTA, New Orleans                   | n/a            | \$17,000,000       | JLL              | Railcars    | \$600,000              | 3.5%               |
| Sep-95                          | MBTA, Boston                       | 2013           | \$34,100,000       | JLL              | Railcars    | \$852,500              | 2.5%               |
| Dec-96                          | NJT, New Jersey                    | 2004           | \$30,000,000       | JLL              | Railcars    | \$1,650,000            | 5.5%               |
| Dec-96                          | NJT, New Jersey                    | 2004           | \$51,600,000       | JLL              | Buses       | \$2,610,000            | 5.1%               |
| Apr-00                          | Valley Transit, Santa Clara County | 2007           | \$55,580,000       | JOL              | 286 buses   | \$2,040,000            | 3.7%               |
| Aug-01                          | SamTrans, San Mateo County         | 2008           | \$35,000,000       | JOL              | 145 Buses   | \$1,100,000            | 3.1%               |
|                                 |                                    |                |                    |                  |             | <b>\$1,232,142,129</b> | <b>3.6%</b>        |

| Domestic Lease Transactions |                     |      |               |             |                    |                        |                      |
|-----------------------------|---------------------|------|---------------|-------------|--------------------|------------------------|----------------------|
| Date                        | Property            | Term | Amount        | Type        | Assets             | Benefit                | Benefit              |
| Sep-94                      | NICTD, Indiana      | n/a  | \$23,500,000  | Pickle      | Railcars           | \$500,000              | 2.1%                 |
| Aug-95                      | CTA, Chicago        | n/a  | \$831,000,000 | Pickle      | Railcars           | \$47,000,000           | 5.7%                 |
| Sep-95                      | Bi-State, St. Louis | n/a  | \$59,000,000  | Pickle      | Railcars           | \$3,183,000            | 5.4%                 |
| Oct-95                      | NJT, New Jersey     | n/a  | \$200,000,000 | Pickle      | Railcars           | \$10,200,000           | 5.1%                 |
| Apr-96                      | NJT, New Jersey     | n/a  | \$125,000,000 | Lease/Lease | Rail Facility      | \$14,800,000           | 11.8%                |
| May-96                      | MBTA, Boston        | n/a  | \$147,000,000 | Lease/Lease | Railcars           | \$15,700,000           | 10.7%                |
| Aug-96                      | CTA, Chicago        | n/a  | \$141,000,000 | Lease/Lease | Rail Facility      | \$12,000,000           | 8.5%                 |
| Oct-96                      | MBTA, Boston        | n/a  | \$117,000,000 | Lease/Lease | Railcars/loc       | \$5,300,000            | 4.5%                 |
| Nov-96                      | PCJPB, Caltrain     | n/a  | \$107,000,000 | Lease/Lease | Railcars/loc       | \$3,911,450            | 3.7%                 |
| Jan-97                      | MTA, New York       | n/a  | \$313,000,000 | Lease/Lease | Maint. Fac.        | \$20,098,513           | 6.4%                 |
| Mar-97                      | MDTA, Miami         | n/a  | \$142,000,000 | Lease/Lease | Railcars/Fac.      | \$8,017,000            | 5.6%                 |
| May-97                      | PAT Pittsburgh      | n/a  | \$100,000,000 | Lease/Lease | Railcars           | \$2,930,000            | 2.9%                 |
| Jun-97                      | RTD, Denver         | n/a  | \$124,750,000 | Lease/Lease | Railcars/Fac       | \$6,290,000            | 5.0%                 |
| Jun-97                      | Tri-Met, Portland   | n/a  | \$120,000,000 | Lease/Lease | Railcars/Fac       | \$7,800,000            | 6.5%                 |
| Jul-97                      | DART, Dallas        | n/a  | \$123,000,000 | Lease/Lease | Railcars           | \$9,000,000            | 7.3%                 |
| Aug-97                      | Bi-State, St. Louis | n/a  | \$105,200,000 | Lease/Lease | Maint. Facil.      | \$5,281,440            | 5.0%                 |
| Nov-97                      | DART, Dallas        | n/a  | \$110,800,000 | Lease/Lease | Facilities         | \$5,800,000            | 5.2%                 |
| Dec-97                      | Tri-Met, Portland   | n/a  | \$80,000,000  | Lease/Lease | 31 LRT             | \$5,740,000            | \$7.79 MIL. GROSS    |
| Feb-98                      | NJT, New Jersey     | n/a  | \$230,000,000 | Lease/Lease | Railcars           | \$20,700,000           | 9.0%                 |
| Apr-98                      | MBTA, Boston        | n/a  | \$219,000,000 | Lease/Lease | Engine Terminal    | \$30,700,000           | 14.0%                |
| Apr-98                      | CTA, Chicago        | n/a  | \$450,000,000 | Lease/Lease | Rail Line          | \$24,600,000           | 5.5%                 |
| Aug-98                      | PAT, Pittsburgh     | n/a  | \$63,950,000  | Lease/Lease | Facilities/Garages | \$6,078,000            | 9.5%                 |
| Aug-98                      | NJT, New Jersey     | n/a  | \$90,000,000  | Lease/Lease | Garages (4)        | \$7,450,000            | 8.3%                 |
| Dec-98                      | WMATA, Wash. DC     | 2024 | \$576,820,000 | Lease/Lease | 214 Breda Cars     | \$37,724,028           | 9.03% gross ben.     |
|                             |                     |      |               |             |                    | <b>\$3,485,520,000</b> | <b>\$249,920,431</b> |

(continued)

**Table 6-3. Inventory of FTA-Reviewed Lease Transactions (continued)**

| Lease-to-Service Transactions |                           |                |                        |                   |                     |                      |                    |
|-------------------------------|---------------------------|----------------|------------------------|-------------------|---------------------|----------------------|--------------------|
| Date                          | Property                  | Projected Term | Transaction Amount     | Transaction Type  | Assets              | Net Benefit          | Percentage Benefit |
| Mar-98                        | New Orleans RTA           | n/a            | \$49,000,000           | Lease-Maintenance | Buses               | \$6,477,800          | 13.2%              |
| May-00                        | LACMTA, Los Angeles       | 2026           | \$162,800,000          | Lease-to-Service  | 72 Rapid Rail car   | \$11,600,000         | 7.1%               |
| Sep-00                        | DART, Dallas              | 2026           | \$172,000,000          | Lease-to-Service  | 53 LRT              | \$12,730,000         | 7.4%               |
| Oct-00                        | Houston Metro             | 2032           | \$225,240,000          | Lease-to-Service  | 7 Bus Facilities    | \$9,110,000          | 4.0%               |
| Oct-00                        | PCJPB, Caltrain           | 2027           | \$67,700,000           | Lease-to-Service  | 20 Commuter, 3 loco | \$6,130,000          | 9.1%               |
| Mar-01                        | MARTA, Atlanta            | 2029           | \$558,850,000          | Lease-to-Service  | Rapid Rail Cars     | \$35,000,000         | 6.3%               |
| May-01                        | Sound Transit, Seattle    | 2028           | \$146,200,000          | Lease-to-Service  | 58 Commuter 11 loco | \$5,250,000          | 3.6%               |
| Jul-01?                       | PCJPB, Caltrain           | 2028           | \$141,400,000          | Lease-to-Service  | 39 Commuter 13 loco | \$11,200,000         | 7.9%               |
| Jul-01?                       | Bi-State Devt., St. Louis | 2027-2035      | \$138,100,000          | Lease-to-Service  | LR Cars & Facility  | \$9,550,000          | 6.9%               |
| Jul-01?                       | LACMTA, Los Angeles       | 2037           | \$289,000,000          | Lease-to-Service  | Facilities          | \$14,400,000         | 5.0%               |
| Aug-01                        | LACMTA, Los Angeles       | 2028           | \$259,200,000          | Lease-to-Service  | 67 LRT              | \$21,072,960         | 8.1%               |
| Sep-01                        | SEPTA, Philadelphia       | n/a            | \$648,460,000          | Lease-to-Service  | 220 Rapid Rail cars | \$49,200,000         | 7.6%               |
| Dec-01                        | NJT, New Jersey           | 2013           | \$100,000,000          | Lease-to-Service  | up to 250 buses     | \$2,000,000          | 2.0%               |
| Dec-01                        | NJT, New Jersey           | n/a            | \$85,000,000           | Lease-to-Service  | 24 LRT              | \$5,360,000          | 6.3%               |
| Feb-02                        | BART, San Francisco       | 2019           | \$212,000,000          | Lease-to-S/QTE    | QTE                 | \$17,000,000         | 8.0%               |
| Feb-02                        | PCJPB, Caltrain           | 2027           | \$174,600,000          | Lease-to-Service  | 52 Commuter 13 loco | \$13,050,000         | 7.5%               |
|                               |                           |                | <b>\$3,380,550,000</b> |                   |                     | <b>\$222,652,960</b> | <b>6.6%</b>        |
|                               |                           |                | <b>\$8,098,212,129</b> |                   |                     | <b>\$517,122,097</b> | <b>6.4%</b>        |

**Key to abbreviations:**

- CBL-G = Cross-border Lease – Germany
- CBL-J = Cross-border Lease – Japan
- CBL-D = Cross-border Lease – Denmark
- CBL-F = Cross-border Lease – France
- JLL = Japan Leveraged Lease
- JOL = Japan Operating Lease
- Pickle = Domestic Lease
- Lease/Lease = Lease In/Lease Out
- Lease-Maintenance = Lease-Maintenance
- Lease-to-Service = Lease to Service
- QTE = Qualified Technological Equipment Lease (Form of Lease to Service)

Source: FTA.

Because of their complexity, the transaction costs associated with cross-border leases are high; therefore, they are more appropriate for major acquisitions made by larger transit agencies. FTA suggests that cross-border leases are appropriate for acquisitions of \$20 million or more and are most beneficial for transactions in excess of \$50 million.<sup>17, 18</sup>

Investors from a handful of countries have participated in the majority of cross-border leases with U.S. transit agencies, primarily those from Japan and Germany. Investors from France, Sweden, and Denmark also have participated in these arrangements.

**Cross-Border Lease Transaction Structure.** Following is a synopsis of the structure of cross border–lease transactions (also see Figure 6-7):<sup>19</sup>

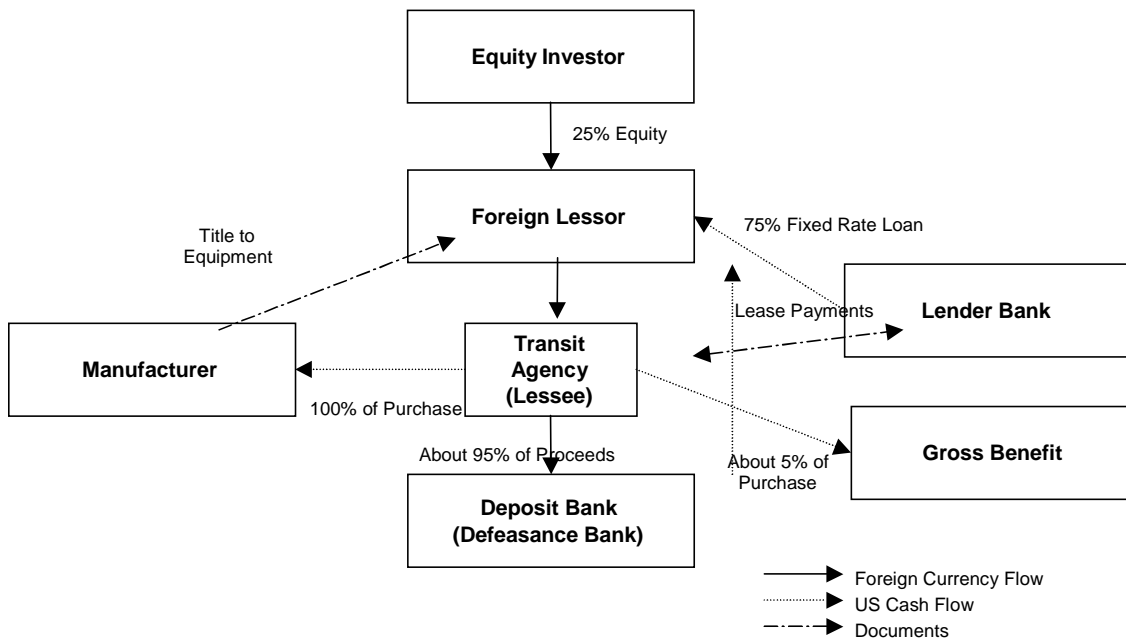
- The foreign entity lessor borrows money from a bank on a non-recourse basis;

<sup>17</sup> U.S. DOT, FTA, *Innovative Financing Techniques for America’s Transit Systems*, 1998.

<sup>18</sup> U.S. DOT, FTA, *Innovative Financing Handbook*, 1995 (available at the following website: [www.fta.dot.gov/fta/library/money/inovhnbk.html](http://www.fta.dot.gov/fta/library/money/inovhnbk.html)).

<sup>19</sup> *TCRP Legal Research Digest 13: Report on Innovative Financing Techniques for Transit Agencies*, Transportation Research Board of the National Academies, 1999; p. 17.

**Figure 6-7. Sample Cross-Border Lease Structure**



Sources: Adapted from FTA, *Innovative Financing Handbook* and TCRP *Legal Research Digest 13, Report on Innovative Financing Techniques for Transit Agencies*, 1999.

- The foreign entity purchases equipment from the transit agency (or directly from the manufacturer);
- The foreign entity leases the equipment to the transit agency (in the case in which the foreign entity bought the asset from the agency in the first place, this is termed a “sale-leaseback” transaction);
- As security for the loan, the lessor foreign entity assigns to the lender the lease payments made by the leasing transit agency sufficient to repay the loan; and
- The transit agency deposits 90 to 95 percent of the proceeds in an escrow account to discharge its lease payment obligations.

This structure places United States tax and commercial ownership with the transit agency as the lessee, but because of foreign jurisdictions’ approach to ownership for tax purposes, tax ownership under the laws of the foreign entity’s country are with the lessor. This arrangement allows cross border–leasing arrangements to be beneficial to both parties to the transaction.

Cross-border leases are either defeased or non-defeased:

- **In a defeased structure**, the lessee pays to an outside entity—generally a bank—an amount equal to the amount the lessor borrowed from the lender. The defeasance bank then assumes responsibility for payment of all obligations to the lender.
- **In a non-defeased structure**, the lessee is obligated only to repay the loan (and, if applicable, the equity investment of the lessor) in order to terminate the lessor’s interests in the equipment.

## Sale-Leaseback

As an example of a potential sale-leaseback structure, the Domestic Lease—also known as a “Pickle” lease (named after Representative J.J. Pickle, who sponsored the bill in 1986 resulting in the development of the mechanism)—is described here. In a Domestic Lease, assets belonging to a tax-exempt transit agency are sold and leased back to the agency.

The net present value of the depreciation benefits has typically been in the range of 2.5 to 7.0 percent of the value of the leased asset.<sup>20</sup> Investors commit to these arrangements to shelter taxable income. Furthermore, domestic leases are generally low-risk investments for equity investors.

These transactions must comply with federal tax laws and regulations. The IRS released Revenue Ruling 99-14 (March 11, 1999), which has had the effect of curtailing (and possibly eliminating) the tax benefit to investors in these transactions. In simple terms, the ruling asserts, “a taxpayer may not deduct . . . rent and interest paid or incurred in connection with a lease in–lease out (LILO) transaction that lacks economic substance.”<sup>21</sup> That is, if the only benefit is that derived from the tax benefits created, the private partner may not claim the tax avoidance benefit. Since this ruling, transit agencies have looked to other approaches to achieve the same (or similar) benefit.

Further drawbacks of domestic lease arrangements are associated with the statutory limitations. In order to participate in such leasing arrangements, the lease term must be for no longer than 80 percent of the useful life of the acquired asset. The asset must be marketable at the end of the lease term, and the investor or lessor must use the straight-line form of depreciation.<sup>22</sup>

## Domestic Lease-In Lease-Out

As with the Domestic Lease structure, IRS Revenue Ruling 99-14 may reduce or eliminate the tax benefits received by private investors in leasehold interest arrangements.<sup>23</sup> Given the fluidity of the law, however, the general concept and its previous application are presented.

The U.S. Leasehold Interest, which is an example of a Domestic lease-in lease-out, is a variant on the cross border–lease arrangement. It has been applied to facilities rather than to rolling stock, as is the case with the cross border–lease arrangement. The other primary difference is that the investors (lessor) are within the United States. The transit agency repays the investor’s equity portion with U.S. Treasury securities held by the investor.<sup>24</sup> When successfully implemented, the transit agency can realize a financial benefit in the range of 4 to 10 percent of the value of the asset being leased.<sup>25</sup> Generally, leasehold interest arrangements have been more beneficial for high-value transactions (i.e., at least \$50 million) with long lease terms (i.e., at least 20 years).<sup>26</sup>

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<sup>20</sup> U.S. DOT, FTA, *Innovative Financing Techniques for America’s Transit Systems*, 1998.

<sup>21</sup> IRS, Revenue Ruling 99-14, March 11, 1999.

<sup>22</sup> U.S. DOT, FTA, *Innovative Financing Techniques for America’s Transit Systems*, 1998.

<sup>23</sup> U.S. DOT, FTA, *Innovative Financing Techniques for America’s Transit Systems*, 1998.

<sup>24</sup> *TCRP Legal Research Digest 13: Report on Innovative Financing Techniques for Transit Agencies*, Transportation Research Board of the National Academies, 1999.

<sup>25</sup> *TCRP Legal Research Digest 13: Report on Innovative Financing Techniques for Transit Agencies*, Transportation Research Board of the National Academies, 1999; p. 22.

<sup>26</sup> U.S. DOT, FTA, *Innovative Financing Techniques for America’s Transit Systems*, 1998.

## Lease-to-Service Transactions

A new variant on the available tax-advantaged lease transactions is the Lease-to-Service approach being explored by a number of transit agencies today. Under a Lease-to-Service structure, the transit agency leases rolling stock through a trust to a private investor. The private investor, in turn, leases the asset back to the transit agency. The private investor receives the tax benefits of depreciation. The transit agency receives a payment—approximately 4 to 10 percent of the asset value—as an up-front payment.

The latest variant on the Lease-to-Service structure is a transaction in which the lease structure is applied to rapid depreciation assets such as computers and software. This has been termed a Qualified Technological Equipment (QTE) transaction. Expenses are higher than for transactions relating to rolling stock. The net benefit to the transit system (as a percent of the size of the transaction) could be in the 8–to–10 percent range. BART in San Francisco, for instance, recently completed a QTE transaction with a net benefit of 8 percent.<sup>27</sup>

### Sample List of Documents Required in Lease-to-Service Transaction

- **Head Lease:** long-term lease between transit agency and lessor
- **Sublease:** long-term sub-lease between transit agency and lessor
- **Tax Indemnification Agreement:** conditions needed to comply with U.S. Tax Code
- **Equity Payment Agreement:** sets forth payment terms of equity investor/lessor
- **Debt Payment Agreement:** sets forth payment terms of debt investor
- **Equity Payment Undertaker Agreement:** guarantee for equity investor payments
- **Debt Payment Undertaker Agreement:** guarantee for debt payments
- **Strip Letter of Credit:** financial product to guarantee a portion of payments owed due to an early termination

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<sup>27</sup> Paul Marx, FTA.

## **7. PUTTING IT ALL TOGETHER—DEVELOPING AND IMPLEMENTING A CAPITAL FINANCING PLAN**

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### **7.1 INTRODUCTION**

The preceding chapters have introduced the scope of alternative funding approaches for transit systems' capital investments and have offered a variety of tools to evaluate the tradeoffs of pay-as-you-go funding approaches and financing techniques. Based on the menu of options presented in earlier chapters, this chapter now offers a framework for putting it all together into a comprehensive capital financing plan and walks through the full process—from the inception of a finance plan to development of a debt management plan and through to the actual debt-issuance process. Along the way, the chapter addresses the choice of revenue streams for debt repayment and the variety of decisions regarding the structure of the financing that must be made prior to issuance. Additional detail on these elements also can be found in Technical Annex 1 to this primer in the form of summary evaluative matrixes.

### **7.2 DEVELOPING A CAPITAL BUDGET AND DEBT MANAGEMENT PLAN**

Before a transit agency decides to seek external financing to finance a particular capital investment or capital program (a set of investments), its managers must evaluate the agency's financial goals, funding alternatives, pre-existing debt and other financial obligations, and projected financial capacity. This process is commonly known as "capital planning" and is critical to the successful deployment of the financing techniques presented in this primer.

Capital planning is an essential component of an issuer's overall debt-issuance and financing program. Having an idea of future financing needs enables the issuer to structure current debt and lease offerings in such a way as to ensure cost-effective financings today and in the future. Establishing policies regarding the capital plan provides formal written procedures for making financial decisions. Rating agencies also look favorably upon debt issues that are part of a well-conceived, long-term plan rather than financings carried out in a piecemeal manner. Ultimately, implementing financing and debt policies enables an issuer to undertake capital expansion plans most efficiently while preserving market access for future debt.

There are essentially three components of a transit system's capital financing program (although organizations may structure these components into more or fewer documents depending on their own processes and state requirements):

1. A capital investment plan or capital budget that articulates the planned future capital projects for a specified period of time (generally at least 10 years) and that is updated on an annual basis to reflect changes in the priorities and project timing;
2. A capital finance plan that sets forth the transit agency's plans for funding the elements of the capital investment plan, including plans for accessing the capital markets; and
3. A debt management plan that specified the transit system's plans for future debt issuance, for managing outstanding obligations, and for assessing the financial capacity to support additional debt. The debt management plan also should include, or be accompanied by, an investment policy and policies regarding the use of derivative products such as interest rate swaps and related techniques.

## Capital Investment Plan (Capital Budget)

The capital investment plan or capital budget of a transit system articulates the system's plans for investing in capital projects over a specified period of time. This can be as little as 3 years or as many as 20, but most often covers a 5- or 10-year period (often shorter for bus-only systems and longer for rail systems). This plan must generally be approved or endorsed by the oversight body for the organization and is generally revisited on an annual or bi-annual basis.

## Capital Finance Plan

Building from the capital investment plan, a transit system should develop a capital finance plan. Developing and maintaining a comprehensive financial plan is the cornerstone of sound financial management and effective capital investment planning.

Capital finance plans should be tailored to the specific circumstances of individual transit agencies, especially with respect to their sources of funding and relevant state and local financial planning provisions. They should be updated on an annual basis—more often if there are major shifts in the plan between plan years. These plans should document previous financing decisions and guide future ones. Some systems have developed financial capacity analysis models that evaluate the system's operating budget and capital programs over a specified period (5 to 10 years), detailing sources of revenue and anticipated operating and capital expenditures.

Following on these basic functions, FTA has developed guidance on the development and maintenance of a transit agency financial plan. This guidance is directed at individual project financial plans but also has relevance to system financial plans (see Figure 7-1).

### Figure 7-1. Sample FTA-Recommended Financial Plan Outline

- 
- I. Introduction**
    - a. Description of project sponsor and funding partners
    - b. Description of project
    - c. Summary of the financial plan
  - II. Capital Plan**
    - a. Proposed project capital plan
    - b. Agency-wide capital plan
  - III. Operating Plan**
    - a. Operating revenues
    - b. Operating and maintenance costs
    - c. Agency-wide operating plan
  - IV. Cash Flow Analysis**
    - a. Twenty-year cash flow projection
    - b. Financial evaluation

Source: FTA: Financial Plan Outline; Appendixes A: Summary of regional economic forecasts, B: Summary of financial condition of project sponsor, C: Summary of bus and rail fleet management plans; [www.fta.dot.gov/office/planning/gftfp/oofp.html](http://www.fta.dot.gov/office/planning/gftfp/oofp.html).

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## Debt Management Plan

Transit systems with debt outstanding or with intentions of issuing debt should develop and maintain a debt management plan. This can be done either as a separate document or as a component of a system’s capital finance plan. In either case, it should be constructively linked to the capital finance plan and the capital budget. Any decision to issue debt in the future should be undertaken in the context of this overarching plan. The debt management plan also should document the analyses used to determine a system’s debt capacity and underlying its debt-issuance plans.

**Excerpt from the Los Angeles County MTA Debt Policy Summary\***

The Board of Directors of the Los Angeles County Metropolitan Transportation Authority (MTA) adopted a Debt Policy in November of 1998. The purpose of the Debt Policy is to establish guidelines for the issuance and management of the agency’s debt. This policy confirms the commitment of the Board, management, financial advisors, and other decision makers to adhere to sound financial management practices, including full and timely repayment of all borrowings and achieving the lowest possible cost of capital within prudent risk parameters.

This policy governs the issuance and management of all debt and lease financings funded from the capital markets and includes all obligations and ancillary facilities related to those debt and lease financings, including investment of bond proceeds not otherwise covered by the MTA Investment Policy.

While adherence to this policy is required in applicable circumstances, the MTA recognizes that changes in the capital markets, agency programs and other unforeseen circumstances will produce situations which are not covered by the Policy or which require modifications or exceptions to achieve policy goals. In these cases, management flexibility is appropriate, provided specific authorization from the Board is obtained.

*\* Excerpted from the Los Angeles County MTA website: [www.mta.net](http://www.mta.net). This description is posted on the website, along with access to the most recent debt audit by the California State Auditor and a description of the agency’s outstanding debt and related obligations.*

### 7.3 DECISION TO FINANCE AN INDIVIDUAL INVESTMENT OR PROGRAM OF INVESTMENTS

There are two components of the assessment of whether debt should be issued for a particular capital investment or program of investments:

- An assessment of the appropriateness of debt financing for the individual project or program in and of itself, based on the benefit-cost tradeoffs, as described in more detail in Chapter 3 and summarized in the accompanying sidebar (on the right); and

**Pay-as-You-Go versus Financing**

**Arguments for pay-as-you-go (pay-as-you-acquire):**

- ◆ Limit risk of financial hardship (default)
- ◆ Maximizing future flexibility
- ◆ Avoidance of interest costs

**Arguments for financing (pay-as-you-use):**

- ◆ Providing capital asset when it is needed
- ◆ Environmental, societal, and economic benefits of earlier delivery
- ◆ Inflation savings/potential present value savings
- ◆ Creation of additional spending capacity
- ◆ Improved cash flow
- ◆ Matching of payments with users/beneficiaries

- Consideration of the particular project or program in the context of the agency's broader capital investment program and debt management plan.

The decision to issue debt for a specific project or program of projects should include a review of the issuer's existing outstanding debt and debt service obligations against the issuer's revenues and forecasts of future revenue growth. This will help determine how much debt can be issued within appropriate coverage limitations and within the boundaries of the organization's overall debt management plan. Based on this review, system managers can determine the appropriateness of debt financing for a particular investment or class of investments.

## **7.4 DEBT-ISSUANCE PROCESS**

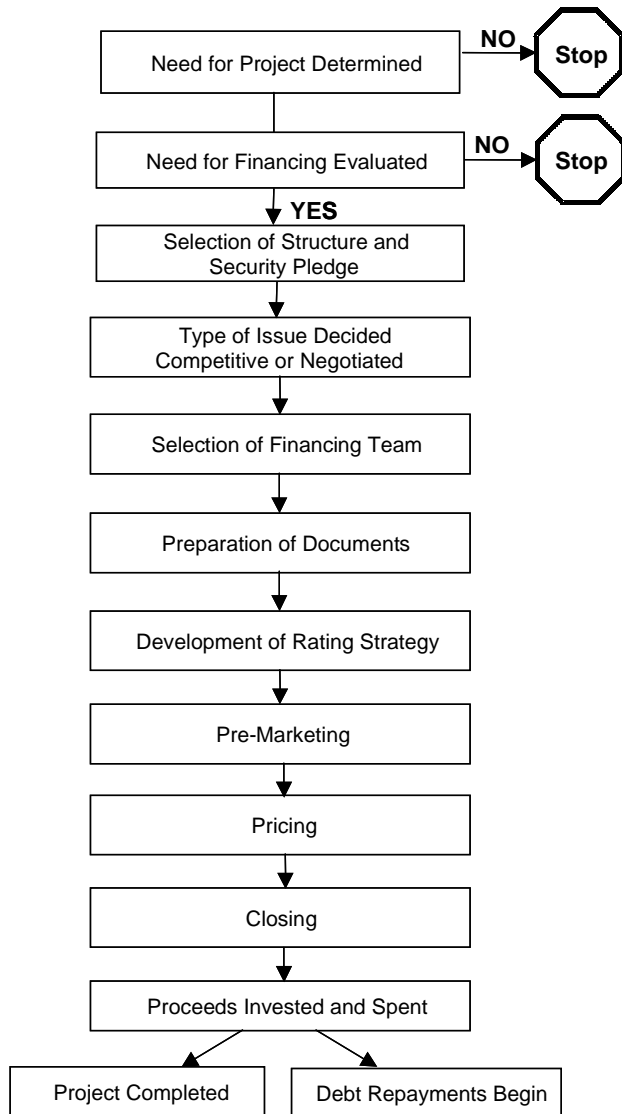
Once the decision is made to issue debt for a specific capital project or program of projects, a transit system is faced with a series of critical decisions before it can enter the process of bringing the debt offering to the capital markets and then a series of actions to issue the debt. This process includes the following 12 steps (while presented in a sequential order, these activities actually occur on a concurrent basis with some important feedback loops among them):

1. Selecting revenues to pledge for debt service,
2. Choosing the type of debt to issue,
3. Securing the necessary authorizations and approvals,
4. Deciding upon the use of financial advisors,
5. Choosing the form of the issue—whether competitive or negotiated,
6. Choosing the type of security to issue,
7. Selecting the finance team,
8. Preparing the financing documents,
9. Developing a rating strategy and deciding whether to make use of a credit enhancement vehicle,
10. Pre-marketing the bonds,
11. Pricing the bonds, and
12. Closing the transaction.

Each of these steps is described below (see Figure 7-2; see Figure 7-3 for the timeline for these activities for a small, straightforward project).

### **Selecting Revenues to Pledge for Debt Service**

Chapters 5 and 6 survey the potential revenues that can be pledged as the source of repayment for debt-financed projects. This decision requires consideration of a wide range of financial, legal, and political factors. It also involves careful consideration of the assets to be financed and the appropriateness of particular revenue streams to the funding of these assets—in terms of exp-

**Figure 7.2. Primary Steps in the Capital Planning and Debt-Issuance Process**

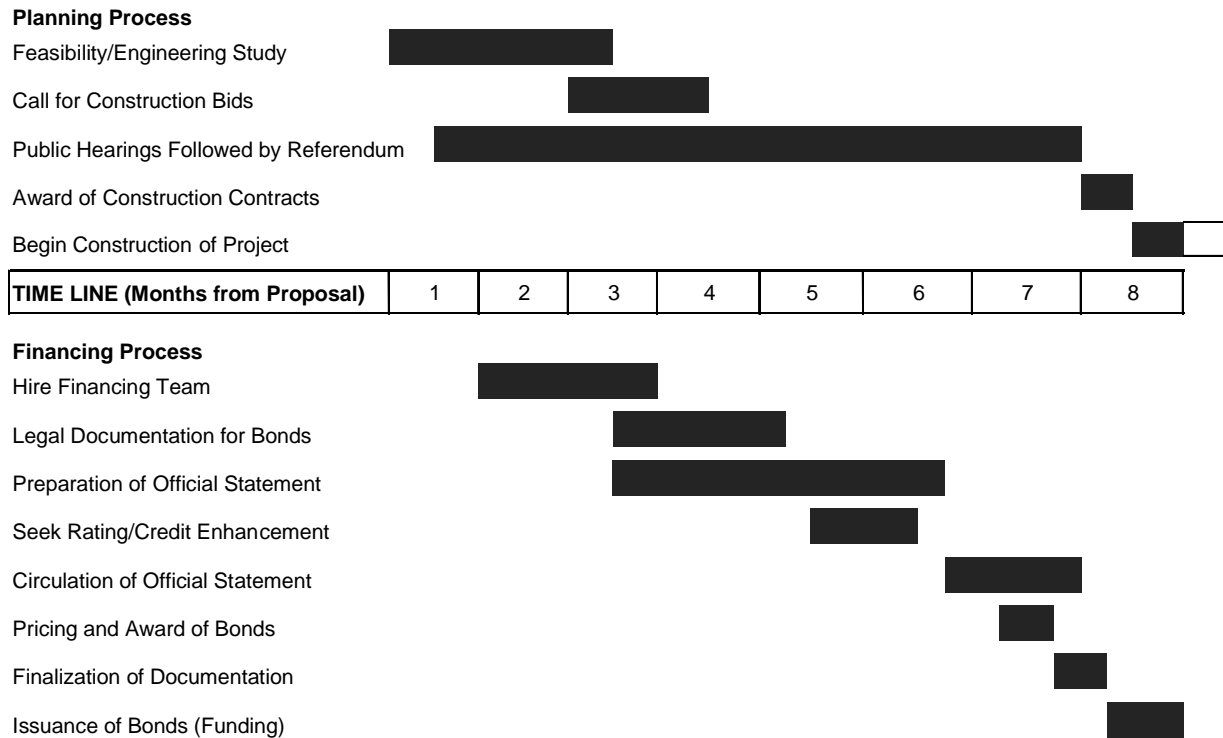
Source: Adapted from U.S. Department of Commerce, National Technical Information Service. *Introduction to Public Finance and Public Transit*. January 1993. Page 37, Figure 2-1.

tations of where the benefits of the investment will accrue and the related political realities. (Additional information regarding the selection of revenues is offered in Technical Annex 1.)

## Deciding on the Type of Debt (or Security Pledge) to Issue

The choice of the type of debt to issue stems from the selection of dedicated repayment streams (and vice versa) but also is based on the type of asset(s) to be financed (e.g., useful life, residual value, opportunity for collateral) and legal and market conditions (see comparative matrix in Technical Annex 1 for more detail).

**Figure 7-3. Illustrative Capital Project and Debt-Issuance Timeline**



Source: *Special Districts—A Useful Technique for Financing Infrastructure*, Urban Land Institute, 1992.

An issuer may choose to use revenues from a particular tax or user charge for the primary repayment of debt, but to gain the lowest cost financing possible, and issuer may pledge its full faith and credit and issue GO bonds rather than revenue bonds. Similarly, a transit agency may intend to repay bonds through farebox revenues but issue the bonds with a pledge of both farebox revenue and other available funds, including dedicated tax revenues or grant funds.

The decision regarding the security pledge is often revisited over the course of the financing process, based on political circumstances; financial analyses (projected debt service coverage ratios, for instance); and market conditions. A preliminary plan must, however, be formulated early in the process to go about securing the necessary authorizations and formulating a preliminary plan of finance.

### Securing Necessary Authorizations and Approvals

Before proceeding with any debt issuance, a transit system must determine what approvals are needed and go about securing them. This can include approval from a multitude of players, based upon federal regulations, state and local statutes, and transit system policies. It is best to seek approval once the basics of the desired financing structure are determined, but before extensive time and resources are invested in developing a full-scale debt-issuance plan. Also, because seeking approval can be a long process, it is best to start early but to build as much flexibility as possible into the authorization requests to avoid having to go back to a legislative or governing body requesting a modification to authorization previously requested.

## Deciding on the Use of Financial Advisors

It is increasingly common for municipal issuers to rely on the assistance of outside financial advisors. The decision, however, should be based on the complexity (and size) of the bond issue and on the degree of knowledge of the issuer's own staff. Retaining financial advisors can provide protection in negotiations with underwriters and can provide a longer-term perspective in financial decision-making, but it comes at a cost. In many instances, the financial advisors can pay for themselves through cost-saving advice.

## Choosing the Form of the Issue (Competitive versus Negotiated)

Some issuers are required by law to use competitive bidding for all borrowings; however, when an issuer has a choice, it can be a very important one. In a competitive bid situation, the issuer puts out an invitation for bids, and syndicates of investment banks respond by submitting proposals to buy the bonds at a specified price. The issuer then selects a syndicate from among the bidders based on the lowest interest cost. In a competitive sale, the underwriter is not involved in structuring the bonds or pre-marketing the issue. Competitive bidding is most likely to be the best and least expensive course when the issuer is well known in the bond market, the transaction is relatively simple, the bond issue is not too large, and the market conditions are relatively stable.

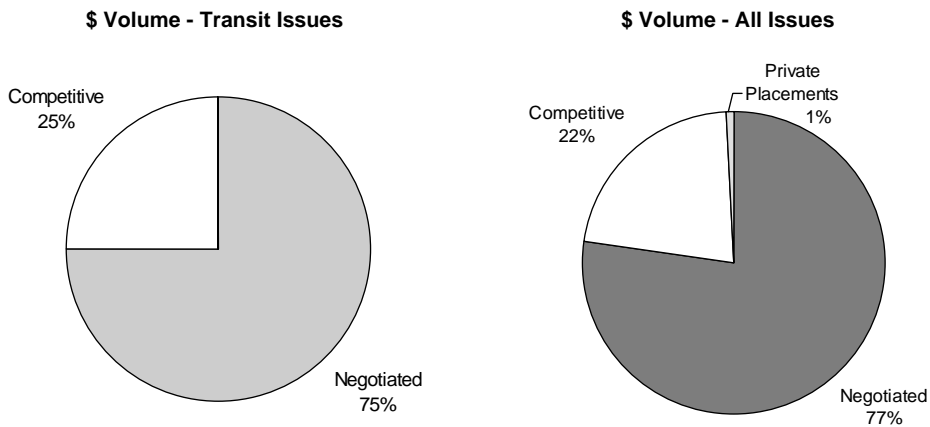
In a negotiated sale, the issuer chooses the underwriters early in the financing process (generally also through a competitive process based on factors such as market sophistication, expertise in the particular type of issue, proposed underwriting spread, and reputation). The underwriter and the issuer can then explore a wide variety of financial products and alternatives that may offer a more beneficial debt offering for the market conditions at the time. Although the term "negotiated sale" seems to imply that the issuer negotiates the interest rates on the bonds with the underwriter, the actual pricing process is more akin to an auction. A negotiated sale permits the underwriters to better understand the issuer's needs, to help structure the issue to meet investor preferences, and to choose the best time to market the bonds based upon pre-marketing activities not possible with competitive issuance. Thus, a large, complex bond offering by a new issuer in a volatile market would most likely be best managed by a negotiated sale (see Table 7-1).

Over the 10-year period from 1993 to 2002, approximately 75 percent of all municipal debt was issued on a negotiated basis. In 2001, negotiated transactions represented 75 percent of all issuances. This is similar to the breakdown for all municipal issues (see Figure 7-4).

**Table 7.1 Competitive versus Negotiated Bond Sale**

|                            | Attributes that Support Competitive Sale    | Attributes that Support Negotiated Sale            |
|----------------------------|---|--|
| <b>The Issue</b>           | Well-known issuer                           | New issuer   |
|                            | Good credit quality (rating of A or higher) | Concern about credit quality (rating lower than A) |
|                            | Conventional structure                      | Innovative debt structure                          |
|                            | Standard security provisions                | Unusual security pledge                            |
|                            | Few or no tax law concerns                  | Potential tax law concerns                         |
|                            | Tax-exempt issue                            | Taxable issue                                      |
|                            | Credit enhancement                          | No credit enhancement                              |
|                            | <b>The Market</b>                           | Strong market/high demand                          |
| Stable, predictable market |   | Volatile market                                    |

**Figure 7-4. Breakdown of Negotiated versus Competitive Transactions, 2001**



## Selecting the Finance Team

The initial team members whom the issuer selects—if not already determined through previous relationships and contractual arrangements—are the bond counsel and either a financial advisor, an underwriter, or both. Team members may be selected on a competitive basis (via a request-for-proposals process, for instance) or based on previous experience or outside recommendations.

## Revisiting the Security Structure

There are a number of structuring decisions still to be made, even after the planned repayment stream is decided. These include

- The period of the financing (i.e., the final maturity);
- The form of the interest rate (e.g., fixed versus variable);
- The amortization structure (e.g., serial versus term bonds);
- Whether revenues are pledged on a gross or net basis;
- The extent to which rate covenants, reserve funds, and additional bonds tests will be utilized; and
- The flow of funds.

## Security Pledge and Financing Size

Once the structure is determined, it also may be appropriate to revisit the security pledge and confirm the adequacy of the intended pledge revenues for the size of the financing and to make any necessary adjustments. If there is flexibility regarding the size of the issue (i.e., how much is being borrowed), such adjustments are an option. If, however, a certain amount is absolutely needed to complete the financing for the project or projects, adjustments to the security pledge may be required, such as adding additional revenues to those initially planned to be pledged. The

key in this step is to take the necessary actions to ensure the viability of this particular financing without cutting too deeply into future flexibility. This generally means avoiding locking up a set of revenues without the flexibility of issuing additional bonds secured by the same revenues at a later date.

## Financing Period

The financing period (or bond maturity) is generally linked to the useful life of the asset or assets to be financed, with longer-lived assets being supported by longer-term financings. This general rule is sometimes legitimately violated when only short-term financing is needed to bridge a gap in time before other funds are available (such as tax or grant funds) or when market circumstances strongly favor short-term rates over longer-term. In these instances, an issuer may issue short-term debt as a form of interim financing, to be replaced later when long-term rates are more attractive. The risk, of course, is that long-term rates do not become more attractive, and the issuer is ultimately stuck with even higher rates than could have been secured at the time of the original financing.

## Interest Rate Structure

Tax-exempt bonds are generally structured as long-term, fixed-rate debt, with the interest rate locked in at the time of the bond sale. Debt also can be structured as long-term, variable-rate debt, with the interest rate to be reset at periodic intervals. Issuers choose variable-rate debt associated with market fluctuations.

The market also has developed a number of methods to convert variable-rate debt to fixed-rate obligations. Such methods are known as “interest rate swaps” (this technique is beyond the introductory focus of this primer).

## Amortization Structure

There are two basic kinds of bond issues, serial bonds and term bonds, as described below:

- **Serial bonds** have periodic or staggered repayment of principal; that is, they incorporate several different maturity dates. In essence, a serial bond issue is a mix of short-, medium-, and long-term bonds. The bond issue can be structured to have level principal repayment or to have equal annual total payments for principal plus interest, similar to a conventional home mortgage. Serial bonds are more typical when a project will be generating steady and significant cash flow over the life of the bonds.
- **Term bonds** all become due on a single maturity date. Interest on the full amount of the term bonds constitutes the issuer’s debt service until the maturity date, at which time the issuer must make the final interest payment and return the full principal amount to the bondholders. Term bonds generally are amortized on an annual basis through mandatory sinking fund payments.

Capital appreciation bonds (CABs) are issued at a deep discount from par value, with the difference between the purchase price and the redemption value representing the investors’

return (yield). Because CABs protect the investor from re-investment risk, these securities are typically offered when specific investors or investor groups can be identified that prefer not to receive semiannual interest payments. Also, depending on the slope of the yield curve, CABs can be used in conjunction with current interest bonds to create additional savings by allowing for quicker retirement of principal during the early years of the debt issue.<sup>1</sup> CABs provide greater flexibility in tailoring debt issue payments to conform to projected revenues.

Bond issues are structured to achieve the lowest interest cost for the borrower. Often, large bond issues will include both a series of serial bonds and a term bond at the final maturity of the issue.<sup>2</sup>

## Gross versus Net Pledge

Bonds can be issued as either a gross pledge or a net pledge. In a gross pledge arrangement, all revenues from the dedicated source are pledged first to repayment of the bonds, and residual revenues are made available to pay operating expenses. In a net pledge structure, the pledged revenues are those resulting from the dedicated source minus that which is needed to cover operating expenses. The logic behind a net revenue pledge is that a system must be operated and well maintained to attract users who will pay to use the system. Therefore, when an outside revenue source is pledged, it is most often on a gross pledge basis; when system revenues are pledged, it is more often on a net revenue basis. Because, however, farebox revenues do not cover transit operations costs, farebox transactions may more frequently be on a gross pledge basis with operating expenses being paid from a separate source.

## Rate Covenants, Bond Tests, and Reserve Requirements

**Rate Covenants.** Rate covenants generally provide a promise that the issuer will set rates (e.g., fares, tolls) that will be sufficient to cover debt service by a certain safety margin. Most revenue bonds with an operating revenue pledge have a rate covenant of at least 1.25 times annual debt service, meaning that user charges will be set so that at least 25 percent greater revenues will be generated than is necessary for debt service. Transit issues do not tend to have such a rate covenant.

**Bonds Tests.** Additional bond tests are designed to protect investors against the possible dilution of pledged revenues through the issuance of additional bonds secured by the same revenue pledge. An additional bonds test, therefore, will specify that historic (and sometimes projected) pledged revenues must exceed maximum or average annual debt service on all outstanding and new bonds by a specific amount. An additional bonds test can require anywhere from 1.5 times to 2.5 times coverage, depending on the perceived reliability of the pledged revenues. For instance, a financing for a new system or service line might require a higher ratio than would a financing for reconstruction of facilities or rolling stock acquisition for an existing system or service area.<sup>3</sup>

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<sup>1</sup> U.S. DOT, FTA, *Introduction to Public Finance and Public Transit*, 1993, p. 59.

<sup>2</sup> Susan Mills Farrington, "Municipal Bond Finance 101" given at FTA Workshop on Innovative Financing, October 27–28, 1998.

<sup>3</sup> Susan Mills Farrington, "Municipal Bond Finance 101" given at FTA Workshop on Innovative Financing, October 27–28, 1998.

**Reserve Requirements.** A debt service reserve fund (DSRF) is an amount of money that is set aside in a protected fund to meet debt service requirements in the event that pledged revenues are insufficient in any given year. A DSRF is most often set as equal to one year of maximum annual debt service. The fund is often funded from bond proceeds at the time of the bond sale. Instead of cash-funding a DSRF, some issuers will purchase a surety policy from a bond insurer. Such a policy will secure a promise from the insurer that in the event that the issuer cannot make debt service payments, such payment will be made by the insurer up to the specified limit of the policy. The DSRF can generally be invested at a rate equal to the interest rate on the bonds. The choice of a cash-funded DSRF or a surety policy is based on a simple calculation of the cost of the policy versus the cost of cash funding the DSRF out of bond proceeds. In some instances, this decision also is driven by limitations on the amount of debt that an issuer legally can issue.

### Flow of Funds

The final structuring decision relates to the flow of funds—or the order of expenditures that will be made out of pledged revenues. This structure relates to the decision of gross versus net revenue pledge, but it also includes designation of when in the order of payments any needed replenishing deposits to the DSRF are made and any other reserve funds are funded, such as for maintenance or unanticipated capital expenditures. After all legally required payments are made and all reserve funds replenished as may be necessary from time to time, remaining revenues may be spent on any legally permitted use.

### Preparing the Financing Documents

Once the issuer has adopted a financial plan, the financing team generally is responsible for drafting and distributing all legal and disclosure documents. Typically, bond counsel takes primary responsibility for the preparation of all bond documents. This process customarily includes the preparation and review of trust indentures, official statements, loan agreements, trust participation agreements, and other contracts necessary for bond issues and other debt instruments.

#### Primary Bond Structuring Elements

**Security/Pledge**—the revenue stream promised to the repayment of bonds or payment of lease obligations (e.g., dedicated state or local taxes, operating revenues, or federal grant funds)

**Flow of Funds**—specifying the order and timing of payments out of bond proceeds and back to bondholders, including the payment of operating expenses, funding of reserve funds, and payment of senior and subordinate bondholders

**Additional Bonds Test**—specifying the extent to which pledged revenues must cover (over-cover) debt service obligations before additional bonds can be issued secured by the same revenue pledge

**Bond Covenants**—promises included in the bond documents regarding the setting of rates and tax levels to meet debt service obligations and other legal obligations relating to the transaction

**Call Provisions**—provisions that allow for (or prohibit) an issuer to “call” or defease the bonds prior to the stated maturity date

**Coupon, Price, Term**—specifying the amount of interest due and when (coupon); the price of the original security, whether at face value, a premium, or discount (price); and the maturity of the issuance (term)

**Reserve Requirements**—to provide protection against insufficient revenues to meet debt service obligations, the DSRF is the predominate reserve fund, but others may exist for maintenance or unanticipated capital investment needs related to the item(s)

**Source:** U.S. DOT, FTA, Introduction to Public Finance and Public Transit, 1993.

## **Developing a Rating Strategy and Deciding Whether to Use a Credit-Enhancement Vehicle**

### **Bond Ratings**

Bond ratings give an indication of the overall creditworthiness of a bond issue, which directly affects the interest rate that will be charged on the borrowings. Such ratings are issued by rating agencies for a fee (see Chapter 3).

### **Credit Enhancement**

“Credit enhancement” refers to financial guarantees by third parties that serve to lower the risk to the investor by ensuring payment and, therefore, have the effect of lowering the interest cost to the issuer. Examples of credit-enhancement options are letters of credit and bond insurance. Essentially, a bank or bond insurance company agrees to make principal and interest payments on the bonds in the event that the issuer is unable to meet its debt service obligations. The highly rated bank or bond insurance company thereby substitutes its own creditworthiness for that of the bond issuer, permitting the issuer to borrow at lower interest rates. Letters of credit are less commonly used than they once were because fewer banks today enjoy AAA ratings (refer to discussion of credit-enhancement mechanisms in Chapter 5).

In simple terms, an issuer will choose to seek a credit enhancement if the reduction in interest charged due to the financial guarantee saves the issuer more in interest payments over the life of the bond than do the premiums charged for the enhancements.

### **Pre-Marketing the Bonds**

The entire financing process to this point has been working toward the basic task of matching the issuer (borrower) with investors (lenders or prospective bondholders). From the investors’ point of view, there are many options for the investment of their funds. An issuer must, therefore, convince investors that its project is worthy of investing. That is, issuers must now market their bonds.

Developing investor interest is an involved process. It is seldom possible merely to provide an official statement to an investor and to close the sale of bonds immediately. Formal and informal discussions with institutional investors (mutual funds, insurance companies, etc.) are often required to explain the project and its financial structure. These meetings are often referred to as “investor roadshows.” One change in recent years has been the increased use of the Internet as an integral tool in the pre-marketing process. Pre-marketing activities vary based on whether a bond issue is to be sold on a competitive or negotiated basis. In negotiated transactions, senior underwriters tend to take the lead in this process; in competitive issuances, the issuer’s financial advisor tends to have this responsibility.

As part of the marketing process, the issuer generally seeks a rating of its bonds from one or more of the rating agencies. The issuer will be required to make written and oral presentations to the rating agencies regarding the bond issue and to provide extensive information on the issuer’s financial situation. As noted earlier, not all bonds are rated, but the vast majority of large issuers are rated because a rating will increase the marketability of the bonds and may lower the interest rate required by buyers by providing assurance that the issue and the issuer are creditworthy.

Timing of the bond issue is another crucial element of marketing the bonds. The financial advisor and the underwriters should have a good understanding of the many factors that could affect the pricing of the bonds on any given day: the schedule for other (competing) issues, announcements of economic data, and general market conditions.

## **Pricing the Bonds**

### **Negotiated Sales**

In a negotiated sale, the preliminary pricing is made 3 or more days prior to the bond purchase date. The managers set final prices on the day of sale.

### **Competitive Sales**

Bond pricing in a competitive sale begins with preliminary meetings in which potential underwriters consult with their traders and salespeople to see what potential there is in the market and how other comparable issues have sold. The final pricing generally begins with the manager announcing the proposed pricing scale and underwriting spread to the other members of its underwriting syndicate. If any sales have been made or pre-arranged, they are announced at this time.

## **Closing the Transaction**

Closing tasks include printing and preparing bond certificates (if printed bonds are used), completing the final official statement, preparing closing documents, arranging for the transfer of funds, and investing bond proceeds.

## **After Closing—Investing Bond Proceeds, Funding the Project, and Repaying the Bonds**

Once the transaction has been completed, bond proceeds can be put to work. The proceeds often are invested for a short period in appropriate investment vehicles (often dictated by state and local statutory or provisions in the bond documents concerning permissible investments).

The spending of bond proceeds is dictated in part by a complex set of IRS guidelines (arbitrage rebate regulations) that dictate how quickly bond proceeds must be spent and how they can be invested when idle. The rationale behind these regulations is to keep tax-exempt borrowers from borrowing at low interest rates and investing bond proceeds at high interest rates, thus earning arbitrage income. The specifics of the arbitrage provisions are beyond the scope of this primer, but it is important to ensure the necessary expertise is available—whether in-house or through outside investment managers and financial advisors—to adhere to IRS requirements.

The next and final step is the repayment of the bonds. This is handled through a trustee and in strict accordance with the bond covenants and disclosure documents. This final step will go on for quite some time and will require careful management, but if the other steps in the process are properly handled, this final step is routine.

## 8. CONCLUDING OBSERVATIONS

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Transit agencies of all sizes are becoming more familiar with the various financing techniques available to them and with the tradeoffs of pay-as-you-go and financing approaches. Necessity, as the mother of invention, continues to play her part in the evolution of financing for transit capital investments. Training and guidance offered by the FTA, trade associations, and research organizations such as the Transit Cooperative Research Program continue to provide critical resource material to transit managers and state and local officials to help them consider and implement the wide range of techniques available and in use today.

Based on a small survey of transit systems and on other resource materials, a number of conclusions or observations can be drawn regarding the current and potential future issuance of debt, application of lease financing, and use of other financing mechanisms by transit agencies of varying sizes and scope of service. Following is a brief review of some of these observations.

- **Revenue-backed bonds supported by local sales taxes continue to dominate.** Sales taxes continue to be the primary source of revenue for transit bond issues. Alternative revenue sources or GO bonds are unlikely to be used extensively to back bond issues by transit agencies in the near future. Sales taxes are an attractive revenue source for lenders because they are not directly linked to either transit ridership or construction of the system. Farebox revenue-backed financings, while being tested by a few large systems, will most likely continue to be of limited application for securing bonds.
- **Agencies typically issue long-term, fixed-interest debt, but structures are evolving.** The majority of transit-related financings are long-term debt, although some agencies are experimenting with short-term debt. Long-term debt is preferred by transit agencies because it provides fixed interest rates that allow for long-term, low-risk planning. Traditional long-term (e.g., 20- to 30-year) debt, however, is generally ill suited to bus financings because equipment has a shorter (e.g., 15 year) lifespan.
- **Agencies tend to use the negotiated sale method.** The majority of transit agencies continue to rely on negotiated rather than on competitive debt issues. This is consistent with other public issuers. Negotiated agreements are chosen because, like most infrastructure investments, transit capital financings are not straightforward, and negotiations offer a greater opportunity to “tell the story.” Competitive deals do take place but are still outpaced by negotiated transactions.
- **The independent revenue source is the key element for securing strong credit ratings.** Rating agency representatives and other market participants identify a range of factors that boost overall credit ratings including management approach; ridership trends; external factors such as land use, economy, and population density; and asset condition. It is generally agreed, however, that an independent revenue source (i.e., one that is unrelated to transit system construction and operation) continues to be of critical value to securing the highest credit rating (and lowest financing cost). As long as the external funding source is reliable and sufficient to meet debt service requirements, the availability of such an independent revenue source substantially reduces investors’ risk.

Transit managers and members of the finance community predict continued slow-to-moderate growth in the use of the capital markets for financing capital assets. Much of the predicted growth in the use of financing techniques will be generated by agencies that already have experience accessing the financial markets, with new LRT systems contributing to the expansion as well. Use of FFGAs as security for debt transactions and participation in the federal credit (TIFIA) program also are contributing to the expanded use of debt financing approaches—directly for major projects and indirectly for other projects by changing attitudes about debt financing in general. The recent “transit renaissance” (as described by some), driven by economic prosperity, increased congestion, and environmental concerns, is the key factor in expanding interest in using the financial markets to advance transit investment.

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# TECHNICAL ANNEX 1: EVALUATING ALTERNATIVE APPROACHES

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## TA1. INTRODUCTION

This annex offers additional detail on the evaluation of alternative financing approaches. It does not include pay-as-you-go funding approaches, but rather starts from the premise that a given investment or program of investments will be paid for through some form of financing (see Chapter 3 for a discussion of the decision of financing vs. paygo funding).

The annex includes a set of comparative matrices of the evaluation criteria associated with long-term bond instruments, lease arrangements, and governmental financing programs (see Table TA1-1). It includes a separate matrix comparing alternative short-term (or interim) financing approaches (see Table TA1-2). It does not include lease mechanisms that are used primarily for the purpose of revenue generation rather than capital formation, such as cross-border, lease-leaseback, and sale-leaseback arrangements. These mechanisms are addressed in Chapter 6 of the primer.

### **Financial factors include:**

- Borrowing rate or interest cost
- Transaction (issuance) costs
- Financial flexibility (i.e., flexibility of debt structure, repayment terms)
- Debt structure/annual payment requirement
- Residual payment requirement (i.e., at the end of the financing period)
- Term/Maturity
- Interest rate risk

### **Institutional factors include:**

- Need for external approvals (voters, state bond commission, city or county officials)
- Impact on out-year usage of pledged repayment stream
- Impact on credit position (i.e., on debt capacity of issuer and standard measures of debt burden)

### **Legal/liability factors include:**

- Extent to which there is a claim on general operations
- Extent of claim on state and local tax receipts

### **Administrative factors include:**

- Management resources required
- Financial covenants affecting general operations/flexibility
- Financial reporting requirements

**TA2. LONG-TERM DEBT AND CAPITAL LEASE FINANCING MECHANISMS**

**Table TA1-1. Comparison of Key Evaluation Characteristics  
Long-Term Debt & Capital Lease Mechanisms**

|  | Tax-exempt Bonds (Non-System Revenue Pledge, e.g., State or Local Tax-Backed Bonds) | Tax-exempt Bonds (Farebox or System Pledge)                          | GANs   | Commercial Loans/Vendor and Private Financing                                 | Tax-exempt COPs   | Traditional Capital Lease   | Governmental Loans (SIBs, RLFs, TIFIA)  |
|--|---|--|--|---|---|---|---|
| <b>Financial factors:</b>  |   |  |  |   |   |   |   |
| Borrowing rate or cost   | Generally low, depending on credit rating of issuer, security pledged               | Low – Moderate, depending on security and rating                     | Low – Moderate, depending on security and duration         | Moderate – High   | Depends on revenue stream backing lease payments, credit enhancements         | Moderate  | Low – Moderate  |
| Transaction costs  | Moderate (higher as a percentage for small issues)                                  | Moderate (generally higher than non-system pledge due to complexity) | Moderate   | Low - Moderate  | Moderate (higher for small issues; benefit of pooled transactions)            | Low   | Low (but considerably more than grant agreements)   |
| Financial flexibility (i.e., grace periods, interest deferral, later re-engineering) | Low – Moderate  | Low  | Moderate   | Moderate - High   | Moderate  | High (with termination, buyout provisions)                                    | Generally High  |
| Debt structure/annual payment requirement  | Generally Level   | Level, some ascension possible                                       | Generally Level  | Flexible  | Level lease payments  | Level lease payments  | Ascension possible  |
| Residual payment requirement   | Only if balloon/bullet maturity   | Only if balloon/bullet maturity                                      | Generally not  | Flexible  | Nominal amount to purchase asset  | To purchase asset   | Only if balloon/bullet maturity   |
| Term/Maturity  | 10 – 30 yrs.  | 10 – 30 yrs.   | 5 – 12 yrs, depending on authorization cycle               | Often shorter-term, interim (bridge) financing                                | Life of asset (or slightly shorter, e.g., 11-12 years for buses)              | Life of asset (or slightly shorter)   | Short- or Long-term (TIFIA can be as long as 35 years after substantial completion/acquisition of the financed asset) |
| Interest rate risk   | Only with variable rate debt  | Only with variable rate debt   | Only with variable rate debt                               | Likely  | Generally No  | Generally No  | No  |
| <b>Institutional factors:</b>  |   |  |  |   |   |   |   |
| Need for external approvals as constraint  | High  | Moderate   | High   | Moderate (except in case of private financing and state statutory provisions) | Low – Moderate (generally no state/voter debt approval)                       | Low   | Moderate (but possibly one time, depends on statutory provisions in state)  |
| Impact on out-year usage of pledged repayment stream                                 | Limited, depends on size of transaction relative to revenues                        | High   | High (flexibility to change course depending on structure) | Moderate  | Flexibility to change course depending on structure                           | Flexibility to change course  | Moderate (less depending reserve, additional bonds, and coverage requirements)  |
| Impact on credit position (debt limits)  | Counts against local/state debt ratios and statutory debt limits                    | Manageable, depends on scale of issue relative to pledge             | Varies by structure and state                              | Yes   | Generally do not count against debt limits, but considered by rating analysts | Generally do not count against debt limits, but considered by rating analysts | Manageable, depends on scale of issue relative to pledge  |

(continued)

**Table TA1-1. Comparison of Key Evaluation Characteristics  
Long-Term Debt & Capital Lease Mechanisms (continued)**

|  | Tax-exempt Bonds (Non-System Revenue Pledge, e.g., State or Local Tax-Backed Bonds)   | Tax-exempt Bonds (Farebox or System Pledge)                 | GANs   | Commercial Loans/Vendor and Private Financing | Tax-exempt COPs  | Traditional Capital Lease   | Governmental Loans (SIBs, RLFs, TIFIA)  |
|--|---|---|--|---|--|---|---|
| <b>Legal/liability factors:</b>            |   |   |  |   |  |   |   |
| Claim on general operations?               | No  | Yes   | Generally no   | Yes   | Generally yes, depends on pledged revenues   | Generally yes, depends on pledged lease revenue stream  | Depends on pledged revenue stream   |
| Claim on state and local tax receipts?     | Generally yes; extent determined by specific pledge (can be limited recourse to specific tax or charge or general obligation) | No, except as possible backstop                             | No, except as possible backstop                            | No  | Depends on pledged revenue stream; in any event, not a legal claim (subject to appropriations) | Depends on pledged revenue stream; in any event not a legal claim (subject to appropriations) | Depends on pledged revenue stream and structure, possibility flexibility to avoid claim |
| <b>Admin factors:</b>                      |   |   |  |   |  |   |   |
| Management resources required              | Low – Moderate  | Moderate – High   | High to establish 1 <sup>st</sup> time; moderate to manage | High to establish; low to manage              | High   | High to establish; moderate to manage   | Low (but considerably more than grant agreements)                                       |
| Covenants affecting operations/flexibility | Limited   | Substantial (additional bonds, reserve funds, rate-setting) | Depends on possible backup pledge                          | No  | Depends on structure   | No  | Fairly limited  |
| Financial reporting requirements           | Significant (less than system pledge)   | Generally most significant                                  | Substantial  | Limited                                       | Significant, esp. if rated   | Limited   | Fairly significant  |

**TA3. SHORT-TERM DEBT MECHANISMS**

**Table TA1-2. Comparison of Key Evaluation Characteristics  
Short-Term Debt Mechanisms**

|  | Commercial Loans/<br>Vendor and Private<br>Financing       | Tax-Exempt<br>Commercial<br>Paper                        | Taxable<br>Commercial<br>Paper                        | GANs  | BANs   | TRANS  | Governmental<br>Loans (SIBs,<br>RLFs, TIFIA)                     |
|--|--|--|---|---|--|--|--|
| <b>Financial factors:</b>                                  |  |  |   |   |  |  |  |
| Borrowing rate or cost                                     | Relatively high  | Low -<br>Moderate  | Moderate  | Low   | Low –<br>Moderate<br>(depends on<br>credit/track<br>record of<br>issuer) | Low  | Low  |
| Transaction costs  | Relatively low   | Relatively<br>high (esp. as<br>1 <sup>st</sup> time)     | Relatively high<br>(esp. as 1 <sup>st</sup> time)     | Moderate –<br>High (esp. 1 <sup>st</sup><br>time) | Moderate   | Moderate   | Low  |
| Financial flexibility<br>(later re-structuring)            | Relatively high (for<br>a price)                           | High   | High  | Moderate  | Moderate   | Moderate   | High   |
| Term/Maturity  | Varies   | Up to 270<br>days (as<br>short as 1 –<br>45)             | Up to 270 days<br>(as short as 1 –<br>45)             | Varies  | Until bonds<br>are issued;<br>generally<br>< 1-2 years                   | Until tax,<br>other<br>revenues<br>received,<br>generally<br>< 1 year) | Varies   |
| <b>Institutional factors:</b>                              |  |  |   |   |  |  |  |
| Need for external<br>approvals as constraint               | Limited (more for<br>private<br>participation)             | Generally<br>to establish<br>program                     | Generally to<br>establish<br>program                  | Moderate  | High   | Moderate   | Low – Moderate   |
| Impact on out-year<br>usage of pledged<br>repayment stream | Limited  | Limited  | Limited   | Moderate  | Must issue<br>bonds, or<br>repay with<br>other funds                     | High   | Varies   |
| Impact on credit<br>position (debt<br>limitations)         | Yes  | Limited,<br>depends on<br>structure and<br>state         | Limited, depends<br>on structure and<br>state         | Limited, unless<br>backup pledge                  | Limited/short-<br>term   | Limited/short-<br>term   | Depends on<br>structure and<br>state                             |
| <b>Legal/liability factors:</b>                            |  |  |   |   |  |  |  |
| Claim on general<br>operations?                            | Generally Yes  | Limited (with<br>outside letter<br>of credit<br>support) | Limited (with<br>outside letter of<br>credit support) | No, unless<br>backup pledge                       | No   | No   | Depends on<br>structure,<br>pledge security                      |
| Claim on state and<br>local tax receipts?                  | Generally No   | Depends<br>on structure,<br>pledge<br>security           | Depends on<br>structure, pledge<br>security           | No, unless<br>backup pledge                       | Not explicit;<br>Implicit<br>depends on<br>anticipated<br>bond structure | Yes, but not<br>always<br>explicit                                     | Depends on<br>structure,<br>pledge security                      |
| Interest rate risk   | Likely   | Yes  | Yes   | If issued as<br>variable rate<br>debt             | If issued as<br>variable rate<br>(or rollover)                           | If issued as<br>variable rate<br>(or rollover)                         | Limited  |
| <b>Admin factors:</b>                                      |  |  |   |   |  |  |  |
| Management<br>resources required                           | Limited, except in<br>case of private<br>operating partner | High (daily<br>monitoring,<br>activity<br>required)      | High (daily<br>monitoring,<br>activity required)      | Moderate (1 <sup>st</sup><br>time especially)     | Low –<br>Moderate  | Low  | Low – Moderate   |
| Impacts on<br>operations/flexibility                       | Limited  | Low  | Low   | Moderate  | Low –<br>Moderate  | Low  | Low – Moderate<br>(compliance<br>with federal and<br>state regs) |
| Financial reporting<br>requirements                        | Limited  | Moderate –<br>High                                       | Moderate – High                                       | Moderate  | Moderate   | Moderate   | Moderate   |

# TECHNICAL ANNEX 2: RATING CRITERIA FOR TRANSIT

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## TA2.1 INTRODUCTION

### Rating Agencies and the Rating Framework

There are three major rating agencies today—Moody’s Investors Service, Standard & Poor’s, and Fitch Ratings. Rating agencies perform in-depth analyses of the credit quality of the bond issuer and the particular bond issue and arrive at a relative rating for the bond issue. The published ratings group bonds according to their likelihood of repayment. The higher the rating is (the lower the credit risk), the lower the return is, assuming all other factors are the same. Table TA2-1 presents the span of possible ratings for long-term bonds of the three prominent rating agencies. Table TA2-2 does the same for short-term debt.

Standard & Poor’s and Fitch further refine their ratings by placing a “+” or a “–” after the letters, while Moody’s uses a “1”, “2” or “3”. A “+” or “1” signifies that the issue is in the upper range of the rating. Thus, an AA+/Aa1 rating is higher than an AA–/Aa3 rating.

Bonds rated BBB/Baa or higher are considered “investment grade”, signifying that they have a high likelihood of being repaid; this qualifies them to be held by some institutional investors who legally cannot hold “speculative grade” investments (bonds rated BB/Ba or lower).

### Ratings in the Transit Industry

Transit ratings are based on a variety of factors, depending on the particular project and agency being evaluated. Key rating issues for transit issues include

- Length of existence;
- Availability of subsidies;
- Condition of assets;
- Agency size;
- Population density as it relates to ridership;
- Land use and employment drivers; and
- Revenue stream.

These items are addressed within three general rating factor categories:

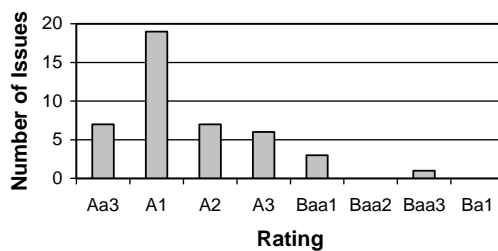
1. Management and financial history;
2. Reliability of the repayment source(s); and
3. Legal provisions included in the lending agreement.

Not all debt issues are rated, but the majority of issues that do not carry bond insurance do carry ratings from at least one of the three major rating agencies. Moody’s Investors Service, for instance,

| Quality Grade  | Standard & Poor's | Moody's | Fitch |
|----------------|-------------------|---------|-------|
| Top Quality    | AAA               | Aaa     | AAA   |
|                | AA                | Aa      | Aa    |
|                | A                 | A       | A     |
| Medium Quality | BBB               | Baa     | BBB   |
| Speculative    | BB                | Ba      | BB    |
|                | B                 | B       | B     |
| Poor Quality   | CCC               | Caa     | CCC   |
|                | CC                | Ca      | CC    |
|                | C                 | C       | C     |
| Default        | D                 |         | DDD   |
|                |                   |         | DD    |
|                |                   |         | D     |

| Quality Grade   | Standard & Poor's | Moody's      | Fitch   |
|-----------------|-------------------|--------------|---------|
| Highest Quality | SP-1+             | MIG 1/VMIG 1 | F1      |
| High Quality    | SP-1              | MIG 2/VMIG 2 | F2      |
| Medium Quality  | SP-2              | MIG 3/VMIG 3 | F3      |
| Lowest Quality  | SP-3              | SG           | B, C, D |

**Figure TA2-1. Moody's Mass Transit Ratings Distribution**



maintained a total of 45 uninsured and underlying revenue bond ratings for mass transit issuers, representing approximately \$21 billion in debt outstanding as of June 2000<sup>1</sup> (see Figure TA2-1).

Because the majority of mass transit debt is secured by sales tax revenues, the rating agencies tend to pay special attention to risks associated with sales taxes, including economic sensitivity, statutory limitations, and vulnerability to evolving and competing political priorities. This focus on the strength and certainty of the primary revenue stream is augmented by consideration of service area characteristics, operating efficiency, and management capabilities.<sup>2</sup>

<sup>1</sup> Moody's Investors Service Municipal Credit Research, *Rating Methodology: Mass Transit*, June 2000.

<sup>2</sup> Moody's Investors Service Municipal Credit Research, *Rating Methodology: Mass Transit*, June 2000.

As the form and substance of transit debt financings expands, the rating agencies adjust their rating criteria and processes accordingly. The advent of financing structures that rely on the promise of future federal funds, for instance, has resulted in changes to rating approaches to capture the assessment of the risk that such revenues will not materialize as promised. Each of the primary rating factor categories is described in the following sections.

## **TA2.2 STRENGTH OF MANAGEMENT AND FINANCIAL HISTORY**

Rating agencies use a transit agency's debt history to assess how well the agency has managed its finances in the past. Operational procedures, priorities, and management turnover rates are considered as well because they ultimately could affect an agency's ability to pay debt service.

### **Past Financial Performance**

Rating agencies view favorably those organizations that have demonstrated an ability to make debt service payments on time and to establish and maintain a reserve fund. Agencies that have failed to meet all debt service requirements are more carefully evaluated and viewed more dubiously. Agencies with limited or no experience in the capital markets also must undergo more extensive evaluation because of the lack of the proxy of a proven track record.

### **Cost-Efficiency of Operations**

General management procedures and priorities have an effect on the reliability of an agency's income stream. They provide some indication of how transit properties can weather times of financial trouble. Rating agencies typically assess management's ability to address ridership issues and capital maintenance requirements. They look for increased labor productivity, increased operating efficiencies through automated fare programs, and effective staff organization. Rating agencies investigate how the agency crafts a successful capital improvement plan and meets the targets set in that plan.

The farebox recovery ratio is used as a rough indicator of a system's operating efficiency. Other statistical indicators are also utilized.

### **Management Capability and Stability**

Management capability and stability are among the most important credit evaluation criteria, although they are also the most subjective to evaluate. The rating agencies see strong management as critical to efficient operations.

A tangible example is management's willingness and ability to implement fare increases. While it is recognized that such increases are subject to local political processes, management's ability to get them accomplished is an important credit consideration. An example is Moody's upgrade of outstanding sales tax revenue bonds of San Francisco's BART system based on achieving a farebox recovery ratio of 53 percent.<sup>3</sup>

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<sup>3</sup> Moody's Investors Service Municipal Credit Research, *Rating Methodology: Mass Transit*, June 2000.

Agencies with high management turnover rates are usually viewed as higher-risk investments. A shift in management can lead to changes in spending priorities and staff management practices. Frequent alterations to agency plans and operating procedures can be seen as decreasing financial efficiency.

### **TA2.3 RELIABILITY OF REPAYMENT SOURCE**

The rating agencies spend a considerable amount of their analytical energy on the question of whether pledged revenues will be sufficient to meet debt service requirements and also to support system operations and other commitments.

A central assessment for any repayment stream is the service area and composition of ridership. This is, of course, particularly important for debt financings that are secured at least in part by fare-box revenues. An example is WMATA's provision of 40 percent of work-related trips into downtown Washington, D.C. This is seen as a positive credit feature because, while tourist and weekend users are important to WMATA's operations, the predictability of daily commuting travel is critical to the stability of the system's revenues.<sup>4</sup>

Most forecasting models and resulting projections implicitly assume that economic activity will perform in roughly the same manner as it has in the past. The rating agencies will stress test these projections to see how resilient the repayment streams are to more severe downturns in the economy or certain key sectors.

#### **Sales Taxes**

The reliability of sales tax revenue is judged according to several factors, including the tax base (or what mix of goods are being taxed), the profile of the local economy, and state and local political environments.

Sales tax pledges are generally made on a "gross revenue" pledge basis, meaning that operating expenses are assumed to be covered by other revenue sources and that all generated (and dedicated) sales tax receipts are available (and pledged) to the repayment of the debt.

#### **Tax Base**

The rating agencies tend to favor tax structures based on the sale of non-durable goods rather than of durable goods. During an economic downturn, people tend to cut back on purchases such as clothing and furniture (durable goods). Consumption of products such as food and gasoline (non-durable goods), however, remains relatively constant. A tax on durable goods, then, is more subject to volatility than a tax on nondurable goods. Sales tax structures that exempt food items—as many do—are especially vulnerable to economic downturns and thus disfavored by the rating agencies.

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<sup>4</sup> Moody's Investors Service Municipal Credit Research, *Rating Methodology: Mass Transit*, June 2000.

## Local Economy

The diversity and resiliency of the local economy is a crucial factor in rating tax-backed bonds. Primary considerations in determining the depth of a market are generally population, income, and employment levels. Other factors, such as the age profile of the population and average household size, also are sometimes considered. In general, a broad and varied retail trade base makes for a more stable and predictable revenue stream. The largest mass transit systems are typically located in urban, densely populated areas with relatively diverse economic bases.

## State and Local Political Environments

The certainty of a dedicated repayment source is fundamentally dependent upon its being kept in place for at least the term of the debt issue. Sales tax authorizations, for instance, are sometimes subject to legislative review and revision. A sales tax that has been pledged for debt repayment is unlikely to be revoked altogether, but the level and applicability of the tax can (and has) been changed. Rating agencies, therefore, consider state and local political conditions in evaluating tax-based revenue financings.

## Federal or State Funding

There has been a recent focus on bonds backed by future federal and/or state grants, including those backed by federal Full Funding Grant Agreements (FFGAs). The regional significance of the transit service or agency is an important consideration in rating debt backed by federal or state funding. In the eyes of the rating agencies, a transit system needs to be crucial to the population it serves. Rating agencies, therefore, question whether the service is the sole or primary service offered or serves a particularly large population. If so, it is more likely to receive a constant stream of government funding than one that serves a smaller population or competes directly with another transit provider.

The advent of financing structures that draw their repayments directly from federal funding has meant that the rating agencies must develop new analytical techniques and a deeper understanding of the federal program. Beyond analyzing the federal funding, the rating agencies also will look to structural enhancements such

### Summary of Sales Tax Rating Considerations

#### Economic Factors

- ◆ Health of local economy
- ◆ Breadth of sales tax base
- ◆ Cyclical factors (e.g., tourism-based economies)
- ◆ Diversity of retail outlets

#### Historical Performance

- ◆ Historical tax revenues or, if new tax, pro forma based on historical sales (little comfort with projected revenues)
- ◆ Capital plans and future bonding needs

#### Structural Protections

- ◆ Additional Bonds Test critical to ensure adequate debt service coverage after future bond issuance
  - Range from 1.2x to 3.0x or more of maximum annual debt service (most tests in the 1.25X–1.5x range)
- ◆ Rate covenant—although uncommon, beneficial
- ◆ Fully funded debt service reserve fund that is conservatively invested
- ◆ Protective features of the flow of funds

Source: From *Standard & Poor's Public Finance Criteria*, 2000.

### Structural Features that Support Strong Ratings of Bond Issues Secured by Federal Funds

- ◆ Adequate cash-funded debt service reserve fund (and possible replenishment mechanism)
- ◆ Advance segregation of grant monies for future debt service payments
- ◆ External liquidity facilities

as advanced debt service payment (whereby debt payments are placed in a fund some period before they are due (e.g., 12 months in advance), reserve funds, and backstop revenue sources in evaluating federally backed financings.

Rating agencies have become increasingly comfortable with the pledge of federal funds—to the point that they are willing to give strong ratings to issues in which federal funds are the sole security for the debt (see, for instance, the rating assessment for New Jersey Transit’s COPs). The stability of federal funding and funding guarantees, FTA’s regulatory structure and procedures, and debt structuring provisions makes financings backed solely or primarily by future federal funds quite creditworthy from the perspective of the major rating agencies.<sup>5</sup>

## FFGA-Backed Bonds

According to Fitch, the political, appropriations, and project performance risks associated with the FFGA program will likely keep ratings in the “BB” to “BBB” rating categories. This is for notes that carry a debt service reserve fund and other enhancing features but no other source of repayment.<sup>6</sup> The concern is primarily regarding the timing of payment rather than whether payment will ultimately be made.

Project-related events are of more concern to the rating agencies in terms of the ultimate payment of debt service. FTA’s performance criteria allow funds to be withheld or withdrawn (including the possible reimbursement of prior awards). Therefore, the rating agencies pay close attention to the actions and expressed opinions of FTA regarding a particular transit agency and the specifics of the project to be financed.

|  |
|--|
| <p><b>FFGA Construction Phase<br/>Credit Considerations</b></p> <ul style="list-style-type: none"> <li>◆ Project Significance</li> <li>◆ Mitigation of Construction Risks</li> <li>◆ Confidence in Transit Authority Management</li> <li>◆ Political Support for Project</li> <li>◆ Historical Working Relationship with FTA</li> </ul> <p><b>Source:</b> Fitch, <i>Transit New Starts</i>, April, 2001.</p> |
|--|

## Farebox Revenues

Financings backed by a pledge of farebox revenues are uncommon because of the fundamental constraint that farebox revenue does not even cover operating costs and thus is generally unavailable for capital expenditures. Because farebox pledges can most often be made only after operating expenses are met, they are generally issued on a “net revenue” basis, meaning that revenues after operating expenses are pledged to the issue. This is in contrast to a “gross revenue” pledge, in which all revenues from the promised repayment source are dedicated to the financing and other revenues used for operating expenses. Gross revenue pledges are most common for financings with dedicated repayment streams that are outside the confines of the transit system—sales tax and other state and local tax pledges.

<sup>5</sup> Moody’s Investors Service Municipal Credit Research, *Rating Methodology: Mass Transit*, June 2000.

<sup>6</sup> Fitch, *Transit New Starts: The Promise and Perils of Full Funding Grant Agreements*, April 20, 2001. Also see: Standard & Poor’s *Highway Grant Anticipation Revenue Bonds Rating Criteria*, August 29, 2000.

The most important consideration in rating a bond backed by farebox revenues is the demand for that service. For existing transit systems, demand is estimated by reviewing historical demand. Rating agencies also assess the relative competitiveness of other transportation modes or transit systems. They use this information to approximate future demand and speculate about what would happen to ridership if fares were increased. Standard & Poor's, for example, reviews historical ridership patterns and changes in those patterns following fare increases. They assess the value of the service to users and their willingness to pay increasing amounts for it.

Assessing demand for a start-up facility is more challenging. Public support for transit is not always an accurate measure of demand. In rating start-up facilities, rating agencies generally look at travel time savings offered by the facility, the intensity of marketing efforts to promote ridership, and the incorporation of facilities such as park-and-ride lots that will encourage transit use in suburban areas. Standard & Poor's asserts that it would "have difficulty" rating a start-up mass transit facility bond in the investment-grade categories if the system had no operating history and the bonds were only backed by farebox revenues.<sup>7</sup>

Proven management capability also is critical to the assessment of farebox pledges. This includes a review of cost controls, labor productivity, and maintenance programs. It also includes an assessment of overall project feasibility in the case of capital improvements and extensions.

Finally, legal provisions are reviewed. Because rate covenants are problematic for transit systems, softer alternatives have been developed. For instance, a transit system can pledge to raise fares, as needed, to meet debt service requirements. Transit systems also can provide higher additional bonds test and fully funded debt service reserve funds as compensating mechanisms.

## TA2.4 LEGAL PROVISIONS

Rating agencies favor repayment plans that provide added safety for bondholders. Safety provisions vary depending on the pledged repayment source. In general, they refer to measures that ensure that payments will be made in full and on time. Security measures include

- Provisions that channel revenues directly to the bondholders;
- The existence of legal agreements stating that the local or state government will repay the debt if the agency is unable to do so;
- Establishment of a funded reserve fund that can be used for debt service if the regular repayment source fails; and

### Key Credit Considerations for Farebox Pledge

- ◆ Demand for service or facility—especially challenging for start-up facility
- ◆ Management—e.g., cost controls, labor productivity, and management capability as well as maintenance procedures
- ◆ Project feasibility—generally supported by an independent engineer's report
- ◆ Strong legal provisions
  - Some form of pledge similar to rate covenant
  - Strong additional bonds test—including only historical revenues (rather than projected) where possible
  - Fully funded debt service reserve fund

**Source:** From *Standard & Poor's Public Finance Criteria 2000*, p. 155.

<sup>7</sup> Standard & Poor's *Public Finance Criteria 2000*, p. 154.

- Sufficient additional bonds tests—generally that require demonstration of the debt service coverage ratio (or the ratio of projected pledged revenues to annual debt service) to be adequate prior to the issuance of any additional bonds secured with the same pledged revenues.

In the case of sales and other tax-based financings, rating agencies tend to favor systems whereby tax collections are carried out by the state on behalf of local jurisdictions (examples include MARTA, LACMTA, and BART). While important for some toll and farebox financings, rate covenants (promises that the rates for taxes, fares, or tolls will be increased under certain circumstances) tend to add little enhancement to sales and other tax financings because increases in the tax rate typically require legislative and/or voter approval. The additional bonds test, therefore, is a more important structural feature in tax-based financings.

## TA2.5 LEASE-BACKED OBLIGATIONS

The approach to rating lease-backed securities can vary substantially from transaction to transaction. This section provides some basic insights into the key credit considerations of the rating agencies in reviewing lease-backed financings.

### **Desirable Security Features in Lease-Backed Obligations**

- ◆ Useful life of leased property at least matches lease term
- ◆ Term of the lease matches term of the bond issue or COPs
- ◆ Lease payments represent installments toward equity ownership of property, with transfer of the asset at end of lease automatically or for nominal fee
- ◆ Lessee agrees to request appropriations in annual budget
- ◆ Lessee unconditionally agrees to make rental or purchase option payments as agreed
- ◆ Lessee agrees to maintain leased property in good repair and insure against loss or damage (self-insurance provisions for property damage risk permitted)
- ◆ Debt service reserve fund equal to maximum semiannual debt service or 6-month advanced funding of debt service, or equivalent combination may be required
- ◆ Security interest provisions whereby lessor has right to take possession of asset should lessee exercise right of non-appropriation favored but not mandatory
- ◆ Appropriate lessor and bankruptcy provisions

### **Features that Can Offset Appropriations Risk**

- ◆ Proven market access
- ◆ Structural features such as Master Lease arrangements, over-collateralization, and other available incentives for appropriation
- ◆ Providing partial pledge of revenues in support of appropriation-backed securities
- ◆ Central (i.e., state) approval and oversight
- ◆ Public credit enhancement

**Source:** Drawn from *Standard & Poor's Public Finance Criteria 2000*.

Standard & Poor's divides leases into two categories: (1) leases resembling long-term debt and (2) higher-risk obligations requiring annual appropriations and with limited legal remedies. Ratings for the first category reflect the long-term and binding nature of the lease and therefore are analyzed much like bonds. The second category involves leases that depend on budgetary appropriations and thus ratings tend to be lower. Typically, a lease rating is one full category below a jurisdiction's full faith and credit rating. Standard & Poor's evaluates the following elements in assessing the credit-worthiness of this second category of lease obligations:

- General creditworthiness of the lessee;
- Essentiality of the leased property and project risk; and
- Security features in the lease agreements (see sidebar).

The use of master leases can help meet the essentiality test. By bundling various items under a master lease, the likelihood of non-appropriation tends to be lessened. This is only true when the items cannot be separated from one another for appropriation. Another factor in the assessment of essentiality is the length of the debt term. The debt term should not exceed the estimated useful life of the assets being leased.

## **TA2.6 RATING AGENCY REVIEWS OF TARGETED INDIVIDUAL CREDITS**

This section summarizes a range of ratings for transit financings over the last several years. The reviews summarized include those for bonds with the following pledges or issuance types (and are organized accordingly):

- Sales and other tax revenue bonds
- Federal and state grant anticipation COPs
- General revenue and hybrid pledges (including farebox)
- Commercial paper

In some instances, a single ratings report is used; in others, ratings reports from two rating agencies are summarized and key differences between the ratings noted within the summary. Provision of these ratings summaries is intended to provide the reader with additional insight—beyond the description of the agencies' stated rating criteria—as to the factors that are of most importance to the rating agencies in assigning a credit rating to a particular bond issue.

### **Sales and Other Tax Revenue Bonds**

Ratings for the following tax-backed financings are reviewed in the pages that follow:

- New York MTA 1998 issue of \$380 million in petroleum business tax (PBT) bonds (Moody's and Standard & Poor's);
- Los Angeles County MTA 1999 issue of \$333 million in Proposition A First Tier Senior Revenue Bonds (Fitch);
- Los Angeles County MTA 1998 issue of sales tax revenue bonds (Moody's);
- Metropolitan Atlanta RTA 1999 issue of \$1.3 billion in sales tax revenue bonds (Moody's); and

- Northeastern Illinois Regional Transportation Authority 1999 issue of \$1.6 billion in Strategic Capital Improvement Program (SCIP) and non-SCIP bonds (Moody's).

## New York MTA \$380 Million PBT Bonds (1998)<sup>8</sup>

### Standard & Poor's Summary

**Description:** The Metropolitan Transportation Authority issued \$380 million of dedicated tax fund bonds.

**Repayment Source:** The bonds are secured by a first lien on a portion of the state's petroleum business tax (PBT) and other MTA operating assistance revenues.

**Term:** 1999–2018

**Rating:** A–

### Rating Justification:

#### **Strengths**

- ♦ The state has shown ongoing commitment to the MTA through the dedication of the PBT and other taxes collected to support the agency.
- ♦ Coverage is sound, with pledged Metropolitan Transportation Trust Fund revenues in 1997 providing a strong 4.17 times coverage of maximum annual debt service.
- ♦ Strong legal provisions—including a strong historical additional bonds test, a fully funded debt service reserve funded at maximum annual debt service, and capitalized interest account funded at 50 percent maximum annual debt service—back the bonds.

#### **Risks**

- ♦ Payments from the state are subject to annual appropriation. (Risk is minimized, however, by state finance law that requires an appropriation to be made each year for the current and next succeeding fiscal years.)
- ♦ The PBT is susceptible to the price and quantity of fuel sold, refined, or imported.
- ♦ The MTA has a very large (\$12 billion) ongoing capital program.

### Moody's Summary<sup>9</sup>

**Description:** The two bond-issuing systems of the Metropolitan Transportation Authority (MTA), the Commuter and the Transit Systems, issued bonds backed in part by farebox revenues.

**Repayment Sources:** The Transit and Commuter facilities bonds are secured primarily by the fares received by both systems. However, the security also includes certain operating subsidies and expense reimbursements from New York City and State and the Triborough Bridge and Tunnel Authority (TBTA).

<sup>8</sup> Source: Standard & Poor's rating summary, 4/3/98

<sup>9</sup> Source: Moody's rating summary, May 1998. Note: MTA's credit rating was adjusted upward in 2002.

The dedicated tax fund bonds are secured by revenues from the petroleum business tax (PBT), a statewide tax on the import and sale of petroleum products. Backup security is provided by a regional sales tax, a long lines tax, and a franchise tax surcharge, and debt service for these bonds is subject to appropriation by the State Legislature.

**Rating:**

- ♦ Transit Facilities Revenue Bonds.....Baa1
- ♦ Commuter Facilities Revenue Bonds.....Baa1
- ♦ **Dedicated Tax Fund Bonds.....A3**
- ♦ Service Contract Bonds.....Baa1

**Rating Justification:**

***Strengths***

- ♦ MTA implemented an aggressive cost-cutting program (raising the percent of total revenues generated by fares by about 14 percent for the commuter system and 12 percent for the transit system) without affecting system performance.
- ♦ Ridership declined during the early 1990s, but has rebounded in recent years and is showing a positive trend across all transit modes.
- ♦ New fee structure enhancements (e.g., free transfers from bus to subway along some routes) and discount programs (e.g., 11 rides for the price of 10) have increased system flexibility and provided opportunities for increased ridership.

***Risks***

- ♦ MTA's capital plan calls for increased borrowing over the next several years, with almost 43 percent of the current plan relying on bonding, compared to 25-34 percent in previous plans. This increases debt service and limits funds available for operations.
- ♦ In recent years, New York State and City have provided fewer subsidies to MTA. If City and State subsidies decline further, MTA will have extremely limited funding options.
- ♦ MTA is vulnerable to unexpected cost increases for both operating and capital expenses, at a time when fixed costs account for an increasing share of the systems budget.
- ♦ As evidenced by the difficulty MTA had in adopting the amended 1995-1999 capital plan, a complex political environment allows for less flexibility on fare, service, and capital plan decisions.

## **Los Angeles County MTA \$333 Million Proposition A Senior Revenue Bonds**

### **Fitch Summary<sup>10</sup>**

**Description:** The Los Angeles County Metropolitan Transportation Authority (MTA) issued, in two series, approximately \$333 million in Proposition A First Tier Senior Revenue Bonds. The bond pro-

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<sup>10</sup> Source: Fitch rating summaries, March 12, 1999 and April 21, 1999

ceeds will refund about \$15.6 million in commercial paper and provide new money for various capital projects, such as the purchase of new buses.

**Repayment Source:** The bonds are secured by the net proceeds of a permanent one-half cent countywide sales tax and additionally secured by a debt service reserve that is equal to the maximum annual debt service.

**Term:** Serial bonds will mature 2000-2018 and term bonds will be due in 2022, 2026, and 2028.

**Rating:** A+

**Rating Justification:**

***Strengths***

- ♦ Sound coverage is provided by the pledged sales tax, which has shown improved performance in recent years, and is expected to remain strong into the future.
- ♦ There is a dire need for relief of traffic congestion, and an ongoing need to manage expected traffic growth.
- ♦ The size and strength of the area economy should continue to provide sound debt service coverage.

***Risks***

- ♦ Operational challenges remain for the MTA. For example, the authority is required to put into service 532 buses, in addition to its 1996 fleet, by the year 2000. The authority has faced other challenges as well, including low farebox recovery ratios, management instability, and delay in receiving federal funding.
- ♦ Sales tax revenues can be volatile, and declined considerably during the last recession.

## **Los Angeles County MTA Proposition A and Proposition C Sales Tax Revenue Bonds**

### **Moody's Summary<sup>11</sup>**

**Description:** The Los Angeles County Metropolitan Transportation Authority (LAMTA) issued sales tax revenue bonds to finance general operation and construction needs.

**Repayment Source:** Debt is secured primarily through a half-cent sales tax (through propositions approved in 1980 and 1990) on retail sales, storage, use, or other consumption of personal property throughout Los Angeles County. For Proposition A: 25% of the revenues go to local jurisdictions for local transit funding, 35% to the Authority for rail system construction and operation, and 40% to the Authority for public transit uses as discretionary funds. For Proposition C: 20% goes to local jurisdictions for local transit funding, and the remaining 80% is earmarked for various transit

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<sup>11</sup> Source: Moody's rating summary, September, 1998

improvements and additions. All revenues go first to the bond trustee for deposits to debt service and reserve funds; the remainder is then handed over to the Authority.

**Rating:**

- ♦ Proposition A Sales Tax Revenue Bonds: A1
- ♦ Proposition C Sales Tax Revenue Bonds: A1

**Rating Justification**

***Strengths***

- ♦ The debt is secured by a broad countywide sales tax and projections have indicated that the revenue stream will remain strong, even under stressed conditions.
- ♦ The sales tax securing the debt is sent directly to the bond trustee to be deposited to debt service and reserve funds before being sent to the Authority.
- ♦ Sales tax revenues have provided strong debt service coverage in the past, despite a prolonged depression in southern California during the early 1990s.
- ♦ With a 3,800 mile route system and a fleet of over 1,700 buses serving 200 bus routes, LAMTA is a crucial provider of bus service for Los Angeles County and portions of Orange and San Bernardino Counties.

***Risks***

- ♦ There is some uncertainty about the ultimate financial impacts of recent revisions to the capital plan. Some projects may be subject to voter approval, and the prospect of ballot initiatives adds risk to the LAMTA's credit stature given the anti-tax sentiment of the California voters.
- ♦ LAMTA has a history of disagreements with funding partners.
- ♦ Considerable and continual management turnover at the Authority has resulted in frequent changes in the Authority's goals and objectives and in the overall execution of the capital program.
- ♦ The rail program has become increasingly unpopular among county voters.

**Metropolitan Atlanta RTA \$1.3 Billion Sales Tax Revenue Bonds**

**Moody's Summary<sup>12</sup>**

**Description:** The Metropolitan Atlanta Rapid Transit Authority (MARTA) issued \$1.3 billion in sales tax revenue bonds to finance completion of rail system extensions outlined under the agency's capital plan, and to operate and maintain the existing system. Planned improvements include rail car refurbishment and replacement of the bus fleet from diesel run to natural gas buses.

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<sup>12</sup> Source: Moody's rating summary, April, 1999

**Repayment Source:** The bonds are secured by proceeds from a sales tax levied in Fulton and DeKalb counties.

**Term:** Not specified.

**Rating:** A1

**Rating Justification:** The rating reflects the fundamental strength and diversity of the sales tax revenues securing the bonds.

### ***Strengths***

- ♦ The bonds have strong security provisions: the pledged sales tax receipts flow directly from the state to the bond trustees.
- ♦ MARTA has a solid financial record. The authority has accumulated sizable financial reserves over the past decade from an unexpectedly rapid growth in sales tax receipts.
- ♦ The sales tax revenues are derived from a stable and diversified economic base, with Fulton and DeKalb counties at the heart of the MSA retail area.
- ♦ Ridership has increased steadily over the past several years. From 1996 to 1998, ridership increased by 9.3 percent.
- ♦ The Authority is nearing the completion of its current capital plan and additional near-term needs are expected to be financed with federal funds and internal reserves.

### ***Risks***

- ♦ The pledged revenue stream is subject to market changes, and recent retardation of population growth and tax base development in the service area (and more rapid growth in the outlying areas of the region) raises concerns about the stability of the tax base.
- ♦ Potential for future debt to finance system expansions may produce over-leveraging of sales tax revenue and weaken debt service coverage.

## **Northeastern Illinois RTA \$1.6 Billion Sales Tax Revenue Bonds**

### **Moody's Summary<sup>13</sup>**

**Description:** The Northeastern Illinois Regional Transportation Authority (RTA) was authorized to issue \$1.6 billion of bonds—\$1.3 billion in Strategic Capital Improvement Program (SCIP) bonds, and \$0.3 billion in Non-SCIP bonds. The funds will be used to finance maintenance and expansion.

**Repayment Source:** The State of Illinois will reimburse RTA for debt service on \$1.3 billion of the \$1.6 billion bonds through a dedicated sales tax collected over RTA's six-county service area. The state will submit the sales tax receipts directly to the trustee for payment of debt service,

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<sup>13</sup> Source: Moody's rating summary, July, 1999

and the RTA will distribute the revenue according to the level of service provided in each geographic area. Moody's does not specify the funding source for the remaining \$0.3 billion in bonds.

**Term:** Not specified.

**Rating:** Aa3

**Rating Justification:**

***Strengths***

- ◆ Management has demonstrated a strong ability to address ridership issues and capital maintenance requirements.
- ◆ The pledged sales tax revenue is backed by a strong, broad-based economy, which includes manufacturing, healthcare, transportation, and technology employment sectors, as well as O'Hare International Airport.
- ◆ The RTA Board recently adopted a 5% reserve policy—a requirement that the General Fund balance represent a minimum of 5% of the annual operating expenditures. This safeguard will help cushion against any unexpected decline in sales tax revenues.
- ◆ The expansive and multi-modal nature of the RTA system contributes to system utilization, as demonstrated by consistently strong farebox recovery ratios of 50% or above annually.
- ◆ The essential nature of the agency's services ensures continued state support.
- ◆ Recent management initiatives such as automated fare collection and early retirement program have increased operating efficiencies, improving financial performance.

***Risks***

- ◆ The RTA has large capital needs given its aging and extensive infrastructure: the 1999–2003 capital improvement program totals \$2.8 billion.
- ◆ Since 1970, land use in the Chicago metropolitan area has increased by 55%, while population has increased only 4%. The shift in population growth from the urban core to the suburbs will continue to pose service challenges to RTA. Farebox recovery ratios for diffuse suburban markets are lower than those for central urban areas.
- ◆ Additional bonding authority requires state authorization.
- ◆ Significant deferred maintenance on existing assets detracts from other missions.

## **Grant Anticipation Financings**

The following grant anticipation financings are reviewed in the following pages:

- New Jersey Transit Corporation 1999 issue of \$160 million in COPs (Fitch and Standard & Poor's);
- New Jersey Transit Corporation September 2000 issue of \$284.9 million FFGA-backed revenue bonds.

## New Jersey Transit Corporation \$160 Million Grant Anticipation COPs<sup>14</sup>

### Fitch Summary

**Description:** The New Jersey Transit Corp. (NJT) issued \$160 million in Certificates of Participation in order to finance a master lease agreement with Nova Bus Corporation. The COPs will be used to lease 500 new buses.

**Repayment Source:** NJT has a limited obligation to make lease payments solely from grants awarded by the Federal Transit Administration. The payments are not a general obligation of NJT, the New Jersey Department of Transportation, or the State of New Jersey.

**Term:** 2001–2008.

**Rating:** A

### Rating Justification:

#### **Strengths**

- ♦ Federal funding levels for transit are not expected to fluctuate through 2003, and money allocated to transit cannot be reallocated for any other purpose without repealing TEA-21.
- ♦ Approval by the FTA of a grant commitment creates a contract obligation on the part of the FTA.
- ♦ Additional bonds tests indicate that there exists an adequate financial margin for the certificates.
- ♦ A debt service reserve fund helps ensure that payments will be made on time, even if federal payments are late.

#### **Risks**

- ♦ Certificate maturities extend beyond the TEA-21 authorization period, and there is *no backup security* if significant changes are made in the amount of federal transit assistance provided.
- ♦ The state must annually appropriate FTA funds to NJT.
- ♦ Federal funds go to NJT before being transferred to the master trust, rather than going first to the trustee and then on to NJT.

## New Jersey Transit Corporation \$160 Million Grant Anticipation COPs

### Standard & Poor's Summary<sup>15</sup>

**Rating:** A

<sup>14</sup> Source: Fitch rating summary, March 26, 1999

<sup>15</sup> Source: Standard & Poor's rating summary, March 19, 1999

## Rating Justification:

### **Strengths**

- ♦ There is significant political and popular support for federal mass-transit programs.
- ♦ Funding mechanisms that allocate the pledged revenues according to a formula based on population, population density, and transit uses, establish some predictability in funding levels.
- ♦ New Jersey has a large and relatively stable 5.9 percent share of the annual allocation of federal mass transit funds.
- ♦ NJT is an important statewide provider of mass transit service.
- ♦ Assuming that New Jersey receives federal grants that are similar in amount to what they have received in the past, projected coverage is sound.

### **Risks**

- ♦ Maturity extends beyond the currently authorized federal transit program.
- ♦ If significant changes are made to the current Transportation Equity Act for the 21st Century (TEA-21), or if there are delays in the reauthorization of TEA-21 when the current program lapses in 2003, repayment may be jeopardized.
- ♦ There is a potential for reductions in the reauthorization of federal taxes that flow into the national mass transit account, which expires in 2005.
- ♦ NJT plans to use the program to fund a portion of their large ongoing capital needs.

## **New Jersey Transit Corporation \$285 Million FFGA-Backed Revenue Bonds<sup>16</sup>**

### **Standard & Poor's Summary**

**Description:** The New Jersey Transit Corporation issued \$284.9 million in bonds backed solely by a pledge of federal capital grants distributed pursuant to a full funding grant agreement (FFGA). The notes were issued to refund outstanding notes issued to fund a portion of the Hudson-Bergen light rail transit system.

**Repayment Source:** The pledge of federal capital grant funds pursuant to a full funding grant agreement is the only repayment source pledged to the repayment.

**Term:** 2004

**Rating:** A-

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<sup>16</sup> Source: Standard & Poor's rating summary, September 7, 2000.

**Rating Justification:****Strengths**

- ♦ The notes mature before expiration of authorized funding under TEA-21, eliminating federal reauthorization risk.
- ♦ The majority of the project has been operational since May 2000.
- ♦ Debt service structure whereby principal payments begin 12 months after scheduled grant payments and fully funded debt service reserve fund.
- ♦ Sound legal provisions, including prohibition on additional parity debt.
- ♦ NJ Transit's experience as a transit operator and history of federal grant participation.

**Risks**

- ♦ Federal grants are subject to annual appropriation with history of partial funding of annual requirements.
- ♦ Late federal budget approval.
- ♦ Competition and demand for future federal funding.

**General Revenue and Hybrid Pledges (Including Farebox)**

The following general revenue and hybrid pledge ratings are summarized in the following pages:

- Massachusetts Bay Transportation Authority 1997 issue of \$200 million in General Transportation System Bonds (Fitch)
- New York MTA 1998 issue of \$736 million in Transit Facilities Revenue Bonds (Fitch)
- New York MTA \$3.0 Billion Revenue Refunding Bonds (Fitch and Moody's)
- Also see Moody's rating summary of New York MTA farebox and other revenues financings under Sales and Other Tax Financings section.

**Massachusetts Bay Transportation Authority \$200 Million General Transportation System Bonds****Fitch Summary<sup>17</sup>**

**Description:** The Massachusetts Bay Transportation Authority (MBTA) issued \$200 million in General Transportation System Bonds to pay for activities such as fleet improvements, station modernizations, and commuter rail improvements.

**Repayment source:** Debt security is provided by the general MBTA revenue stream; it is not a function of the authority's operations, farebox revenues, or assessment charges levied on member cities

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<sup>17</sup> Source: Fitch rating summary, October 29, 1997

and towns. If the authority at any time lacks sufficient funds for debt service, the Commonwealth will provide the required amount.

**Term:** 1998–2027

**Rating:** A+

**Rating Justification:**

***Strengths***

- ♦ Security for the MBTA’s debt rests on the Commonwealth, which has demonstrated strong financial support and commitment to the MBTA’s debt obligations and operations in the past, even through periods of serious financial constraints. The Commonwealth’s dedication to MBTA is evidenced by the fact that operating subsidies from the Commonwealth increased through Fiscal Year 1994 for both statutory and non-statutory assistance.
- ♦ MBTA is the primary provider of mass transit in the state.

***Risks***

- ♦ MBTA’s cost containment measures successfully reduced the level of operating subsidies required, but it appears that the Authority has recently reestablished a need for increased support from the Commonwealth, particularly in the area of statutory assistance to cover major capital expenditures.

## **New York MTA \$736 Million Transit Facilities Revenue Bonds**

### **Fitch Summary<sup>18</sup>**

**Description:** The Metropolitan Transportation Authority (MTA) issued \$736 million in Transit Facilities Revenue Bonds (issued in two series) to finance a portion of the cost of purchasing new subway cars, rehabilitating subway stations, and making improvements to the city bus system.

**Repayment Source:** Approximately 60 percent of the security comes from operating revenue (primarily farebox revenues), and 40 percent from operating subsidies (from state, city, and local sources, federal operating assistance, and TBTA operating surplus transfer).

**Term:** Not specified.

**Rating:** A–

**Rating Justification:**

***Strengths***

- ♦ Operating revenues have been high. In 1997, the MTA generated about \$3.5 billion in operating and non-operating revenue and had an operating cash surplus from farebox rev-

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<sup>18</sup> Source: Fitch rating summary, November 12, 1998

venues and operating subsidies of \$319 million—a 19-percent increase over the 1996 surplus.

- ♦ It is likely that operating revenues will remain high. Fare discount programs put into place in 1997 had a positive effect on ridership and did not adversely affect operating performance.
- ♦ The MTA receives a number of state and local subsidies.
- ♦ Ridership in the New York area is fairly inelastic.
- ♦ Successful implementation of capital programs has brought the system into an improved state of repair.

#### **Risks**

- ♦ Continued operating and capital support, which is necessary for long-term financial stability, is not guaranteed. If economic conditions worsen in the city, operating performance could be degraded.
- ♦ The MTA has large, ongoing capital needs.

## **New York MTA \$3.0 Billion Transportation Revenue Refunding Bonds**

### **Fitch Summary<sup>19</sup>**

**Description:** The Authority issues approximately \$3.0 billion in Transportation Revenue Refunding Bonds (Series 2002A). The proceeds will be used to retire outstanding principal and accrued interest on outstanding bonds and to pay the cost of issuance. This is the first of several issuances that will refund all \$4.5 billion in outstanding bonds under the existing 1982 transit facilities special obligation resolution, the 1984 commuter facilities special obligation resolution, the 1990 New York Cit Transit Authority transit facilities special obligation bond resolution, and the 1995 commuter facilities special obligation subordinated bond resolution. It also is part of the MTA's \$13.9 billion debt restructuring program, streamlining the Agency's credit structure from 13 debt resolutions to four primary ones.

**Repayment Source:** The bonds are secured by a trust estate consisting of all operating receipts and operating subsidies, including transit and commuter rail fares and other operating revenues, surplus toll revenues and certain dedicated tax sources, state and local operating subsidies, and reimbursements. Pledge revenues are provided on a gross pledge basis.

**Rating:** A

#### **Rating Justification:**

##### **Strengths**

- ♦ Essentiality of network to regional economy.

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<sup>19</sup> Fitch ratings summary, April 18, 2002.

- ♦ Continued improvements to the performance, efficiency, and demand of MTA's services.
- ♦ Strong track record of prudent financial management.
- ♦ Gross lien on consolidated pledged revenues, with revenues derived from a broad base of operating receipt and subsidy sources.
- ♦ Strong incentive to moderate future leveraging given demands on surplus revenues for operating support of transit and commuter rail.
- ♦ Ample debt service coverage.

#### **Risks**

- ♦ Periodic financial challenges during economic downturns.
- ♦ Ongoing significant capital and operating needs.
- ♦ Continuing reliance on debt to finance bulk of enormous capital needs.
- ♦ No debt service reserve fund.

## **New York MTA \$3.0 Billion Transportation Revenue Refunding Bonds**

### **Moody's Summary<sup>20</sup>**

**Rating:** A2

#### **Rating Justification:**

##### **Strengths**

- ♦ More diversified revenue base and increased cash flow flexibility than issues to be refunded.
- ♦ Positive financial and operating trends over the last two decades despite financial and economic challenges.
- ♦ Gross revenue pledge of operating revenues of both systems, resulting in less volatility.
- ♦ Structure frees up additional borrowing capacity by eliminating debt service reserve without putting issue in jeopardy.
- ♦ Rate covenant requiring MTA to fix transit and commuter fares and other fees together with operating subsidies to pay all debt service and operating and maintenance expenses.
- ♦ Despite shock of September 11 and effects of the recession in New York City, ridership has grown year to year.

##### **Risks**

- ♦ Constraints on future debt capacity.

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<sup>20</sup> Source: Moody's press release, April 24, 2002.

- ♦ Risk of operating subsidies fluctuating in an economic slowdown, making MTA vulnerable to slowing tax revenues and to the decisions of all levels of government.
- ♦ Expiration of labor contracts in near future represents unknown budgetary impact.
- ♦ Mixed operating performance and budget gap.

## Commercial Paper

The following commercial paper financing and rating is summarized on the following page:

- San Francisco BART Financing Authority 1999 issues of \$60 million and \$40 million of commercial paper notes (Moody's).

## San Francisco BART Financing Authority

### Moody's Summary<sup>21</sup>

**Description:** The San Francisco Bay Area Transit Financing Authority issued two sets of commercial paper notes (in the amounts of \$60 million and \$40 million) to finance a portion of the cost of an 8.7-mile extension of the San Francisco Bay Area Rapid Transit District (BART) to the San Francisco International Airport.

**Repayment Source:** The source of repayment is not specified. The State Street Bank and Trust Company (State Street) provided a letter of credit (LOC), which ensures timely payment of the principal and interest to note holders. The LOC is sized at \$103 million to cover the principal and interest for both series of notes.

**Term:** The notes will mature no later than 270 days from the date of issuance, and no more than 15 days prior to the expiration of the LOC (June 25, 2002).

**Rating:** State Street has a P-1 rating for short-term obligations.

**Rating Justification:** The rating is based on the historical performance of State Street rather than the performance of the authority, and reflects the bank's valuable franchise servicing financial assets, master trustee business and asset management as well as its strong earnings and good capitalization.

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<sup>21</sup> Source: Moody's rating summary, July 1, 1999

## **TECHNICAL ANNEX 3: INTERVIEW SUMMARIES**

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### **TA3.1 TRANSIT SYSTEM, STATE, AND LOCAL OFFICIALS INTERVIEWS**

During the research phase supporting development of this primer, interviews were completed with 27 knowledgeable representatives from transit systems and state and local oversight organizations. The goal was to determine current trends and barriers to broader use of innovative financing measures. The individuals represented 18 entities, including 11 transit agencies, 2 metropolitan areas and 5 states. Interviews focused on transit managers, financial officers, and local and state officials. Size and geographical locations of the entities were diverse, although not statistically arrived at.

Topics discussed included planning and budgeting procedures, financing needs, projected revenues, future revenue sources, political and public support, experience with financing and innovative measures, utilization of public-private partnerships, barriers to broader use of innovative methodologies and resources needed. Interviews were conducted in person and by telephone during March through May 2000.

Following is a synopsis of the findings from the interviews. Additional results were used in developing the content of the primer (intentionally without direct attribution of interviewees).

- Of the 19 systems surveyed, 11 have utilized financing techniques in the past; most were safe harbor and cross border leases. A few used GANS and leverage leases. All agree that decisions on future financing measures will depend on IRS rulings.
- Thirteen of the systems anticipate using financing mechanisms in the future.
- Ten systems have sufficient statutory authority to utilize financing measures, but two do not because of Board policies favoring pay-as-you-go. Two others have neither statutory authority nor Board support. Seven do not have sufficient authority at present but are anticipating or presently organizing to gain more authority in the near future.
- Fifteen are planning financing of programs or new projects over \$100 million in the next 5 years.

### **TA3.2 FINANCE COMMUNITY INTERVIEWS**

Interviews were conducted with representatives from the finance community, including commercial and investment bankers, rating agency analysts, and bond insurers. These interviews served as background to the development of major portions of the primer content, especially with respect to findings regarding recent innovations and barriers to greater use of innovative finance techniques.

Following is a summary of the key findings of the interviews, without attribution or statistical analysis.

## Who Relies on Transit-Related Debt Financing?

- **Two Tiers of Agencies Account for Majority of Transit-Related Debt.** A small number of major transit agencies are responsible for almost all transit-related debt financing. These agencies fall into two categories:
  1. **“Major Players”** include New York MTA, Chicago RTA, New Jersey Transit, San Francisco BART, and Los Angeles MTA. These agencies characteristically operate established heavy rail systems that were initially funded using debt finance. Their capital programs are focused on meeting maintenance needs rather than expansion. The magnitude and frequency of the deals conducted by major players help to make debt financing an attractive option for both major transit agencies and lenders.
  2. **“New Systems”** include Dallas Area Rapid Transit (DART), Bi-State Transit (St Louis), Denver RTA, and several California agencies. These agencies characteristically are in the process of building new light rail transit (LRT) systems. They are new entrants to the capital markets that are using debt finance because they require major capital investments that exceed resources from federal funding programs.

Also involved are agencies operating bus systems that rely on federal/state funds, lease financing, and commercial banks in place of debt financing. In contrast to major players like NY MTA and NJTransit, or new LRT systems, most transit agencies with bus-only systems depend primarily on federal or state grants and lease funding arrangements for their capital programs. These funding sources are preferable because acquisition of replacement buses can be staggered over an extended time period, which reduces one-time capital costs to a level below those required to support a debt financing. Interviewees also attributed limited debt financing by smaller agencies to historical reliance on state and federal funds, and the inherently conservative approach to risk held by transit agencies. Lack of political support, creditworthiness concerns, or limited statutory authority to conduct bond issuances were not cited as major barriers to capital markets for smaller agencies.

- **Moderate growth in transit debt issues anticipated.** Interviewees anticipate that there will be slow to moderate growth in use of capital markets by transit agencies. Much of this growth will be generated by agencies that already access the financial markets; however, new LRT systems are likely to be important too. Factors responsible for growth identified by interviewees include use of Full Funding Grant Agreements and TIFIA under TEA-21 as new mechanisms for financing major projects.

## How Is Transit-Related Debt Structured?

- **Revenue-backed bonds supported by local sales taxes predominate.** Transit agencies in California and Florida in particular have relied on voter-approved local sales taxes to back transit debt. Interviewees all agree that sales taxes continue to be a primary source of revenue for transit bond issues and that alternative revenue sources or general obligation bonds are unlikely to be used by transit agencies in the near future. Sales taxes are an attractive revenue source for lenders because they are not directly linked to either transit ridership or construction of the system. All interviewees agreed that farebox revenue is rarely used to back

bonds. General obligation (GO) bonds are not common, particularly for large transit debt financing deals.

- **Agencies typically issue long-term, fixed-interest debt.** According to the interviewees, most transit-related financings are for long-term debt, although some agencies, such as DART, do use short-term debt. Long-term debt is preferred by transit agencies because it provides fixed interest rates that allow for long-term, low-risk planning. Long-term (30-year) debt, however, is unsuited to bus financings because equipment has a 15-year lifespan.
- **Agencies use negotiated agreements to establish debt finance deals.** Most transit agencies rely on negotiated rather than competitive debt issues. Typically about 70 percent of all bond issues are negotiated, so transit agencies are not different from other borrowers in this regard. Negotiated agreements are chosen because most transit financings are not straightforward, and negotiations offer a greater opportunity to “tell the story.” Competitive deals do take place but are only usable for very straightforward projects.
- **Independent revenue source is key for securing strong credit ratings.** Interviewees provided a range of perspectives on the factors that boost overall credit ratings including
  - Management approach;
  - Ridership trends;
  - External factors such as land use, economy, population density; and
  - Condition of assets.

All interviewees agreed, however, that an independent revenue source (i.e., unrelated to transit system construction and/or operation) is critical to successfully securing a strong credit rating, primarily because a strong, independent revenue source—such as a sales tax—reduces risk.

## What Are Barriers to Transit Agency Debt Financing?

- **Limited expertise in debt financing.** Most interviewees praised the knowledge and financial savvy of “major player” agencies that are already involved in capital markets. Several noted that outside this group, however, most transit agencies do not possess in-house expertise necessary to consider debt finance options. Few agencies are capable of conducting financial analyses of the costs and benefits of debt finance versus PAYGO approaches. Transit agencies need to acquire budget staff with expanded expertise in order to access capital markets effectively. One interviewee suggested that APTA should play a stronger role in providing education resources.
- **No dedicated, external revenue source/borrowing capability.** Major player agencies have long established authority to borrow and revenue sources. New entrants, however, must secure these capabilities, frequently via voter-approved referendums. Recent experience with agencies such as DART in Dallas suggests, however, that there is currently quite widespread public and political support for such initiatives.
- **Conservative capital planning approaches.** Several interviewees described transit agencies as “conservative” in their willingness to consider debt financing. In part, this appears attributable to the traditional reliance on funding from federal and state sources. In contrast, the water and sewer sector, which has not had similar access to federal funding for a number of years, has a stronger record in developing in-house expertise needed to access markets.

- **Small-scale capital funding needs.** Several interviewees observed that smaller and, particularly, one-time deals—which are characteristic of those pursued by small to mid-size transit agencies—are not attractive to lenders. In addition, the fixed costs of arranging smaller, one-time deals and higher interest rates charged by lenders to smaller agencies may reduce the attractiveness of debt financing to transit agencies. One interviewee indicated, however, that small deals are not uncommon in other areas of infrastructure, such as water and sewer, and suggested that the “history and culture” of transit agencies plays a big role in why they do not pursue debt financing more frequently.
- **Bus-only system capital funding needs.** Most interviewees agreed that the capital needs of bus-only systems are not well suited to debt financing approaches. The acquisition of replacement buses can be staggered over an extended time period, which reduces one-time capital costs to a level below those required to support a debt financing. In addition, the typical lifetime of buses falls well below the 30-year lifetime of long-term debt.

## Innovations in Transit Financing

- **Full funding grant agreements.** All interviewees cited full funding grant agreements as the preeminent advance in debt financing. NJTransit and BART are the innovators, but other large agencies are expected to follow this approach. One interviewee suggested that interest in full funding grant agreements is not trickling down to smaller agencies
- **Leveraging market access through inter-agency partnering.** Several interviewees indicated that smaller agencies seeking debt finance might be able to partner together for greater leverage in the markets. The California Transportation Finance Corporation was set up to help transit agencies in this manner according to one interviewee, but has not been particularly active. There are, however, challenges to partnering as noted by several interviewees. Cross-state deals are difficult or impossible to develop because of tax laws, while timing the needs of individual agencies and matching comparable projects in state may be challenging.
- **State revolving trust funds.** One interviewee observed that state-operated revolving trust funds are an obvious way to secure funding from the markets for smaller transit agencies while relying on the greater leveraging power of the state. Revolving loan funds are already in use to meet other infrastructure needs such as roads and water and sewers but have not been used for transit according to the interviewee.
- **Multi-modal planning and funding.** One interviewee suggested that the “next frontier” for transit is multi-modal funding of mega-projects such as airport transit links. In this way, transit is incorporated into a larger project with other potential revenue sources such as tolls or surcharges.
- **Tax increment financing (TIF) as an alternative revenue source.** One interviewee discussed the potential for TIF to become a new revenue source for funding transit. The direct link between development and transportation make a strong argument for imposition of fees to support transit; however, cities typically control TIF and they have not been willing to give up control of TIF programs.

## TECHNICAL ANNEX 4: GLOSSARY

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This glossary of terms is drawn from several resource documents.<sup>1</sup> It includes common public finance terminology, terminology specific to transit capital investments, and to relevant federal legislation and programs.

### A

**Acceleration:** The means by which the Trustee of a bond issue may make all future payments of principal immediately due and payable after the issue has been declared to be in default.

**Account Servicing:** Monitoring the status of accounts of indebtedness, monitoring records of current debts, billing for amounts due, collecting amounts due, handling debtor correspondence, performing follow-up functions, and providing accurate reporting of debt portfolios.

**Accrue:** Process of increasing account value, usually associated with interest or other time-related increases in account value.

**Accrued Interest:** The dollar amount of interest earned between the dated date and the date of delivery. This amount is usually included in the purchase price of the security and is normally rebated back to the investor with the first coupon payment.

**Administrative Offset:** Withholding money payable by the federal government to a person or held by the government for a person or entity in order to satisfy a debt that the person or entity owes the government.

**Ad Valorem Tax:** A tax based on property value. It may also be based on the assessed value of the property.

**Additional Bonds Test:** A legal requirement that new additional bonds, which will have a claim to revenues already pledged to outstanding revenue bonds, can only be issued if certain financial or other requirements are met.

**Advance Construction:** States or local governments independently raise upfront capital required for a federally approved project and preserve eligibility for future federal-aid reimbursement for that project. At a later date, the state can obligate federal-aid highway funds for reimbursement of the federal share. This tool allows states to take advantage of access to a variety of capital sources, including its own funds, local funds, anticipation notes, revenue bonds, bank loans, etc., to speed project completion.

**Advance Refunding:** As the name implies, this is the refunding of an outstanding bond issue by means of a new issue. Such refundings can only be done if the issue being refunded includes terms allowing for the bonds to be called by the issuer. An advance refunding is normally performed to achieve substantial interest rate savings for the issuer. Outstanding bonds with high interest rates are replaced with bonds with lower interest rates.

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<sup>1</sup> Source documents include: *Introduction to Public Finance and Public Transit*, prepared by Public Financial Management, Inc. for the U.S. Department of Commerce National Technical Information Service, January 1993; Innovativefinance.org's Glossary of Terms; *APTA 2000 Public Transportation Fact Book*; George J. Marlin, Joe Mysak, *The Guidebook to Municipal Bonds*, 1991; Moody's Public Finance Department, *Moody's on Municipals: An Introduction to Issuing Debt*, 1989; William E. Sweeney, *Glossary of Municipal Securities Terms*, 1985; Stephen A. Ross, Randolph W. Westerfield, Jeffrey F. Jaffe, *Corporate Finance*, 1990.

**After-Tax Yield:** The annual yield figured as a yield to maturity, adjusted for capital gains taxes.

**Agreement Among Underwriters (AAU):** The document that forms the Underwriting syndicate and allows the managing Underwriters to act on behalf of the syndicate.

**Alternative Minimum Tax (AMT):** Established in the 1986 Tax Reform Act to ensure that individuals and corporations pay some amount of federal income tax on the interest income from certain tax-exempt bonds.

**American Municipal Bond Assurance Corporation (AMBAC):** An insurance company that will insure a bond issue's payments of principal and interest. AMBAC insured bonds are rated AAA.

**Amortization:** Provision made in advance for the gradual reduction of an amount owed over time.

**Appraisal:** Formal valuation of property, made by a competent authority.

**Appropriation:** An authorization by a legislative body to set aside cash for a specific purpose.

**Arbitrage:** The earnings difference between invested bond proceeds and the interest paid on the bonds. The 1986 Tax Reform Act states that these earnings must be rebated back to the Federal Government unless certain conditions are met.

**Asked Price:** The price at which municipal securities are offered to buyers or the price at which sellers agree to take the securities.

**Assessed Valuation:** The valuation by appropriate government entities of real property for the purposes of taxation.

**Asset:** Any item of economic value, either physical in nature (such as land) or a right to ownership, expressed in cost or some other value, which an individual or entity owns.

**Auxiliary Transportation Revenues:** Revenue earned from operations closely associated with transportation operations, including station concessions, vehicle concessions, advertising and automotive vehicle ferriage.

**Average Life:** The average length of time an issue of serial bonds and/or term bonds with mandatory sinking funds and/or estimated prepayments are expected to be outstanding.

## **B**

**Bad Debt Expense:** Estimated cost of losses that may be realized as a result of a failure to collect on receivables. The loss is recorded when information is available that an asset (in this case, receivables) has probably been impaired or a liability incurred and when the amount can be reasonably estimated. For accounting purposes, the bad debt expense estimate is recorded when the allowance account is established or periodically adjusted.

**Balloon Payment:** A principal amount, equal to a large percentage of the total principal amount, to be retired on a single date, often at maturity.

**Basis Point:** A shorthand financial reference to one-hundredth of one percent (.01 percent) used in connection with yields and interest rates.

**Bearer Bond:** A bond that is payable to the holder, but does not carry the owner's name.

**Beneficial Owner:** The person to whom benefits of an investment accrue, even though it is held in the name of another person or a firm.

**Bid:** The price someone will pay for a security or a purchase offer.

**Blind Pool:** A program in which bonds are issued for the benefit of pool members whose projects are not openly determined at the time of issuance. The members finance their projects through loans from the Blind Pool.

**Blue Sky Laws:** State laws established to protect the public from securities frauds.

**Bond:** An interest bearing promise to pay a specified sum—the Principal—due on a specific date to the owner of the security.

**Bond Anticipation Note (BAN):** Short-term obligations issued by public agencies to temporarily finance a project. Bonds are expected to be sold to repay the BANs and to provide long-term financing for the project.

**Bond Bank:** A means of lowering borrowing costs in which local government securities are pooled into larger offerings that provide the financing for the participating local government projects.

**Bond Buyer Index:** Generally used to connote the Bond Buyer's index of yields on 20 general obligation bonds, calculated weekly. The index has a rating roughly equivalent of A1.

**Bond Buyer Municipal Bond Index:** An index of bond prices designed by the Chicago Board of Trade for trading long-term municipal bond futures. The index is compiled Monday through Friday by the Bond Buyer.

**Bond Counsel:** A lawyer or law firm, with expertise in bond law, retained by the issuer to render an opinion upon the closing of a municipal bond issue regarding the legality of issuance and other matters including the description of security pledged and an opinion as to the tax-exempt status of the bond.

**Bond Election or Bond Referendum:** The process by which voters approve or reject bond issues.

**Bond Fund:** Usually held by the Trustee for payment of debt service. It also may refer to a tax-exempt mutual fund.

**Bond House:** Any one of many firms specializing in underwriting, distributing, and dealing in Bonds.

**Bond Insurance:** A financial guarantee provided by a major insurance company (usually AAA rated) as to the timely repayment of interest and principal of a bond issue.

**Bond Price:** Prices are given in fractions per 100 rather than dollars and cents. A price of \$973.75 for a \$1,000 bond is given as 97%.

**Bond Proceeds:** The money the issuer receives from its bond sale.

**Bond Purchase Agreement:** Exists between an Issuer and the Underwriter of the Bonds. The terms of sale, conditions to closing, liability restrictions of the Issuer, and any indemnity provisions are set forth in this document.

**Bond Resolution:** A legal document describing in specific detail the terms and conditions of a bond offering, the rights of the bondholder and the obligations of the issuer to the bondholder. The document is alternatively referred to as an indenture of trust.

**Bond Transcript:** The legal documents associated with a bond offering.

**Bond Year:** Begins with the date of issuance and consists of twelve-month periods.

**Bonded Debt:** The portion of an issuer's total indebtedness as represented by outstanding bonds.

**Book Value:** Net amount at which an asset or liability is carried on the books of account (also referred to as carrying value or amount). It equals the gross nominal amount of any asset or liability minus any allowance or valuation amount.

**Book Yield:** Based on the Book Value of the security to calculate the yield of the security.

**Broker:** A person or group of persons receiving a commission for acting as an agent for buyers and sellers of securities.

**Budget Authority:** Authority provided by law to enter into financial obligations that will result in immediate or future outlays of federal government funds. Budget authority includes the credit subsidy costs for direct loan and loan guarantee programs. Basic forms of budget authority include appropriations, borrowing authority, contract authority, and authority to obligate and expend offsetting receipts and collections.

**Bullet:** An issue with a single maturity date, before which no principal or sinking fund payments are amortized.

**Build/Operate/Transfer:** Public-private partnership arrangement involving private construction, private operation for given period of time, and eventual transfer to public ownership.

## C

**Calendar (Visible Supply):** The schedule of new issues coming to the market.

**Call:** A provision that allows the issuer to prepay its debt prior to the maturity date of the security at a price at or above par.

**Callable Bond:** A bond or note subject to redemption at the issuer's option prior to its stated maturity.

**Call Price:** The specified price at which bonds are redeemed under a call provision (equal to or above the par amount of the bond).

**Call Risk:** Risk to the investor associated with prepayments by the issuer of the principal amount of the bonds prior to the stated maturity date, in accordance with the bonds' redemption provisions.

**Capital Appreciation Bond (CAB):** A long-term bond that pays no current interest, but accretes or compounds in value from the date of issuance to the date of maturity. CABs differ from zero coupon bonds in that they are issued at an initial amount and compound in value, in contrast to zeroes, which are issued at a deep-discount and compound to par.

**Capital Budget:** A unified financial plan that accounts for needs and spending levels for a group of current and prospective capital facilities within a broader governmental budget.

**Capital Expense:** The expenses related to the purchase of tangible property or other items eligible to be capitalized. Property includes tangible assets with an expected service life of more than one year at the

time of their installation and a unit cost greater than \$1,000. Generally, these are any items eligible as capital expense under federal, state or local requirements.

**Capital Gain:** A profit realized from selling a security at a price higher than the original purchase price.

**Capital Lease:** A lease that has a term that spans at least 75 percent of the useful life of the leased property.

**Capital Reserves:** Funds that remain in a bank and are not loaned out. These funds can be used to support a variety of credit enhancement tools. Capital reserves also can be used to leverage the lending institution, or borrow against reserves to expand the pool of available loan funds.

**Capitalization:** Process of depositing various funds as seed capital into a lending institution to enable financial services. This pool of money is distributed, through loans and credit enhancements, in such a way to ensure that payments are made back to preserve the corpus.

**Capitalized Interest:** A specified portion of the original bond proceeds that will be used to pay interest on the bonds until revenue from planned sources becomes available upon completion of construction.

**Cash Settlement:** The same-day delivery of funds from a government securities transaction.

**Certificate of Participation (COP) Lease:** A type of lease in which the lessor (or designated Trustee) issues shares (in the form of COPs) that entitle the holder to a portion of the lessor's interest in the lease.

**Chapter 9:** The section of federal bankruptcy law under which municipalities may file for protection from creditors.

**Claim:** Synonymous with the term "debt," for purposes of this document. (See "Debt.") Alternative meanings of the word "claim" include a request (1) submitted by a lender for government payment of a defaulted guaranteed loan; (2) filed with the Department of Justice for the pursuit of litigation and/or enforced collection of an account; or (3) filed with an agency for the payment of an amount considered due to the submitting individual or organization, such as for medical insurance.

**Clearing House Bank:** A member bank of a clearinghouse association that exists to facilitate the clearing of checks, drafts, and other items drawn on banks.

**Closeout:** Occurs concurrently with or subsequent to an agency decision to write off a debt for which the agency has determined that future additional collection attempts would be futile.

**Closing:** The procedure by which a sale between the issuer and the buying group is completed. It is at the closing that the issuer delivers the securities to the buyers and the issuer receives the proceeds from the sale of securities.

**Cohort:** Direct loans obligated or loan guarantees committed by a program in the same year even if disbursements occur in subsequent years. Post-1992 direct loans or loan guarantees will remain with their original cohort throughout the life of the loan, even if the loan is modified. Pre-1992 loans and loan guarantees that are modified shall each, respectively, constitute a single cohort. (OMB Circular No. A-11, "Preparation and Submission of Budget Estimates." Executive Office of the President, Office of Management and Budget, hereafter cited as OMB Circular No. A-11.)

**Collateral:** Any property pledged as security for a loan.

**Collateralized Annuity Bonds (CABs):** These bonds amortize in the same way a mortgage does, with scheduled level payments comprising principal and interest. The bonds cannot be called.

**Collection Agency:** Private sector entity whose primary business is the collection of delinquent debts.

**Co-Manager:** A manager participating in a security offering who is normally not responsible for maintaining the books of account for the offering.

**Comfort Letter:** A letter to underwriters of a securities offering from an independent accountant that is delivered both at the sale and close of an issue for the purpose of providing information concerning financial matters which may have occurred since the last audited financial statement of the issuer.

**Commercial Paper:** Unsecured debt obligations with short (usually less than 180 days) maturities that are used to provide funds for operating expenses or for interim financing of permanent capital improvements. Corporate payer is taxable, while municipal paper is tax-exempt.

**Commission:** The agent fee a broker receives for buying or selling securities.

**Competitive Sale:** A sale of securities in which Underwriters submit bids to purchase the securities.

**Concession:** Discount off the reoffering or list price of a bond or note that is given to dealers and dealer banks.

**Conditional Sale Lease:** A lease in which the lessee has the option of applying lease payments to the purchase of a facility for a reduced price. The lessee is owner for tax purposes. For public lessees, it also is called a tax-exempt lease.

**Conduit Financing:** The sale of bonds or notes by a governmental unit for the benefit of a third party, usually a private corporation. The securities issues are not considered general obligations of the conduit agency.

**Construction Fund:** The fund from which project costs are financed. A portion of the bond proceeds is deposited into this fund, which then earns interest during the construction period.

**Contingencies:** Existing conditions, situations, or circumstances which involve uncertainty and which could result in gains or losses. For example, guaranteed loans represent contingent liabilities that, in the event of default by the borrowers, the federal government would be liable to cover the losses of the guarantors, and thereby sustain the loss itself.

**Contract Authority:** A form of budget authority that permits obligations to be made in advance of appropriations or receipts. Contract authority therefore is unfunded and requires a subsequent appropriation or offsetting collection to liquidate (pay) the obligations. The federal-aid highway program has operated under contract authority since 1921.

**Convertible Bond:** A bond that may be converted into other securities, most often common equity securities.

**Cooperative Agreement:** Written consent between two parties to define the basic structure and purpose of a financial transaction, including the roles the parties involved and the way in which funds will be administered.

**Corpus:** The corpus refers to all initial funds, additional, and subsequent revenue deposited for bank capitalization. The corpus is essentially a "body" of funds that is available, on a revolving basis, for use in providing financial assistance to borrowers.

**Coupon:** A detachable part of a bond that evidences interest due. The coupon specifies the amount of interest due on a bond, on what date the interest payments are to be made, and where the payment is to be made.

**Coupon Bond:** A bearer bond, or a bond registered as to principal only, carrying coupons as evidence of future interest payments.

**Covenant:** A legally binding commitment by the issuer of municipal bonds to the bondholders.

**Coverage Margin:** The margin of safety for payment of debt service on a revenue bond, reflecting the number of times (e.g., 1.2) by which annual revenues after operations and maintenance costs exceed annual debt service. It represents the issuer's ability to make debt service payments.

**Credit Cycle:** Complete credit process, composed of four phases: credit extension, account servicing, debt collection, and write-off/close out.

**Credit Enhancement:** Financing tools—such as letters of credit, lines of credit, bond insurance, debt service reserves, and debt service guarantees—that improve the credit quality of underlying financial commitments. Credit enhancements have the effect of lowering interest costs and improving the marketability or liquidity of bond issues.

**Credit Program:** Federal program that makes loans and/or loan guarantees to non-federal borrowers.

**Credit Ratings:** Credit quality evaluations of bonds and notes made by independent rating services. A higher bond rating generally lowers the interest rate that the borrower must pay and, therefore, overall capital costs.

**Credit Reporting Bureau:** Private sector entity which collects financial information on debtors and whose reports on debtors reflect information received from the public and private sectors.

**Credit Score:** A statistically based measure of risk of a particular type of loan to a particular borrower.

**Credit:** Promise of future payment in kind or of money given in exchange of present money, goods, or services.

**Current Discount Rate:** Discount rate used to measure the cost of a modification with respect to the modification of direct loans or loan guarantees. It is the interest rate applicable at the time of modification on marketable Treasury securities with a similar maturity to the remaining maturity of the direct guaranteed loans, under either pre-modification terms, or post-modification terms, whichever is appropriate.

**Current Receivable:** a receivable on which payment is due within 12 months of the reporting period.

**Current Yield:** The ratio of interest to the market price of a bond.

## D

**Dated Date:** The date of an issue from which bondholders are entitled to receive interest.

**Dealer:** A firm or an individual whose business is to act as a principal in the purchase and sale of securities.

**Debenture:** A bond that only has the security of the general credit of the issuer and certain unpledged assets.

**Debt:** Synonymous with the term “claim,” for purposes of this document. It refers to an amount of money or property that has been determined by an appropriate federal official to be owed to the U.S. from any person, organization, or entity other than another federal agency.

Included as debts are amounts due the U.S. from fees, duties, leases, rents, royalties, services, sales of real or personal property, overpayments, fines, penalties, damages, taxes, interest, forfeitures, and other sources.

**Debt Collection:** Recovery of amounts due after routine follow-up fails. This activity includes the assessment of the debtor’s ability to pay, the exploration of possible alternative arrangements to increase the debtor’s ability to repay and other efforts to secure payment.

**Debt Limit:** The limit on the principal amount of debt that an issuer may legally have outstanding at any time.

**Debt Per Capita:** Outstanding bonds divided by population, a common measure of a jurisdiction’s overall level of indebtedness.

**Debt Service:** The sum of required principal and interest payments for a given period.

**Debt Service Coverage:** The margin of safety for payment of debt service on a revenue bond, reflecting the number of times e.g., 1.2) by which annual revenues after operations and maintenance costs exceed annual debt service.

**Debt Service Reserve Fund:** This fund is normally required under most indentures for the payment of debt service in the event that pledge sources of payment are insufficient. The initial balance of the fund is a portion of total bond proceeds and is an amount equal to the lesser of 10 percent of the bond size and the largest annual debt service payment.

**Deep Discount Bonds:** Bonds selling for far less than their face value, generally less than 80 percent of par. A deep discount bond will have a yield or return well above the stated coupon rate.

**Default:** Failure to meet any obligation or term of a credit agreement, grant, or contract. Often used to refer accounts more than 90 days delinquent.

**Defeasance:** To replace the existing security of an issue with another allowable security. Such a substitution is often necessary for refundings, which place sufficient funds in escrow to guarantee the payment of principal and interest on the issue being refunded.

**Deficiency:** Portion of a loan that remains outstanding after pledged property has been liquidated (converted to cash) and applied to the outstanding balance.

**Delinquency:** Failure of the debtor to pay an obligation or debt by the date specified in the agency’s initial written notification or applicable contractual agreement, unless other satisfactory payment arrangements have been made by that date. Delinquency would also occur if, at any time thereafter, the debtor fails to satisfy the obligations under payment agreement with the agency.

**Delivery Date:** The date on which the purchaser takes full possession of an issue.

**Demand Notes:** Securities that can be sold by the holder back to the issuer (or its designated agent) on short notice, usually seven days. Most demand notes also carry variable rates.

**Denomination:** The face value of a security.

**Depository:** A clearing agency that provides immobilization, safekeeping and book-entry settlement services to its customers.

**Design-Build:** A procurement or project delivery arrangement whereby a single entity (a contractor with sub-consultants, or team of contractors and engineers, often with sub-consultants) is entrusted with both design and construction of a project. This contrasts with traditional procurement where one contract is bid for the design phase and then a second contract is bid for the construction phase of the project.

**Direct Debt:** The debt a municipality incurs in its own name.

**Direct Loan:** A disbursement of funds by the Government to a non-Federal borrower under a contract that requires repayment of such funds with or without interest. The term includes the purchase of, or participation in, a loan made by a non-Federal lender. The term also includes the sale of a Government asset on credit terms of more than 90 days duration. The term does not include the acquisition of Federally guaranteed non-Federal loans in satisfaction of default or other guarantee claims or the price-support loans of the Commodity Credit Corporation.

**Direct Loan Obligation:** A legal or binding agreement by a Federal agency to make a direct loan when the borrower fulfills specified conditions. Acquisitions of federally guaranteed non-Federal loans in satisfaction of default or other guarantee claims are not recorded as direct loan obligations.

**Direct Loan Subsidy Cost:** Estimated long-term cost to the federal government of direct loans calculated on a present value basis, excluding administrative costs. The cost is the present value of present value of estimated net cash outflows at the time the direct loans are discharged. The discount rate used on the calculation is the average interest rate (yield) on marketable Treasury securities of similar maturity to the loan, applicable to the time when the loans are disbursed.

**Direct Placement:** The same as private placement, in which a new issue is sold directly to one or several institutional investors instead of being offered publicly through underwriters.

**Directly Generated Funds:** Any funds generated by or donated directly to a transit agency, including passenger fares, advertising revenues, donations and grants from private foundations. Directly generated funds also include directly levied taxes and other funds dedicated to transit such as development fees where the transit agency has the legal authority to impose the fee or charge.

**Discharge:** Satisfying a debt as a legal obligation through the performance of the obligation(s) imposed under the debt instrument, such as to pay the debt in full, or through another action such as a compromise.

**Discount:** The amount by which the purchase price of a security is less than its par value.

**Discretionary Spending:** Outlays controllable through the congressional appropriation process. Such outlays result from the provision of budgetary resources (including appropriations and obligation limitations but excluding mandatory spending authority) in appropriation acts. The Budget Enforcement Act establishes annual spending limitations or caps on discretionary appropriations and resulting outlays.

**Double-Barreled Bond:** A bond that is secured by more than one source. A common combination is the full faith and credit of the issuer and certain pledged revenues.

**Downgrade:** Occurs when a ratings agency lowers the rating of an issuer.

**Due Diligence:** An investigation conducted by concerned parties to determine the accuracy of all the pertinent items associated with an issue, and to ensure that no necessary information has been omitted.

**Duration:** The sum of the present values of each of the principal and interest payments of a security, weighted by the time to receipt of each payment, divided by the total of the present values of the payments. Unlike average life or average maturity, duration takes into account the timing of both principal and interest payments.

## E

**Earmarking:** Statutory or constitutional dedication of revenues to specific government projects or programs.

**Effective Interest Cost:** The rate at which the debt service on bonds would be discounted to provide a present value equal to the bid amount on the bonds.

**Effective Yield:** An investor's rate of return when it sells a security.

**Enterprise Debt:** Debt that will be retired by the revenues earned by a facility.

**Equity:** Commitment of money from public or private sources for project finance, with a designated rate of return target.

**Equivalent Bond Yield:** The annualized yield on a short-term discount security expressed on a comparable basis to yields on interest bearing securities.

**Equivalent Taxable Yield:** What a taxable security would have to yield to provide an investor with the same after-tax return as could be earned on a tax-exempt security.

**Escrow Account:** A fund established to hold monies pledge and to be used only for a certain purpose, such as payment of debt service or construction costs.

**Event of Default:** A specific event, as defined in the financing documents associated with an issue, which allows the trustee and/or the bondholders to commence certain default proceedings as outlined in the issue's security document.

**Executive Order 12893:** An executive order issued by President Clinton in January 1994, establishing infrastructure investment as a priority for the Administration and directing federal agencies to establish programs for more effective capital investment from current federal funds.

## F

**Face Amount:** The par value (i.e., principal or maturity value) of a security.

**Fiduciary:** An individual or trust given the responsibility of acting for the benefit of others.

**Financial Guaranty Insurance Company (FGIC):** An insurance company that often issues policies to insure the required repayment of the principal and interest amounts of an issue. All issues insured by FGIC carry the company's AAA credit rating.

**Flow of Funds:** The security documents' description of how revenues are to be collected, invested, transferred, and applied.

**Forbearance:** The act of a creditor who refrains from enforcing a debt when it falls due. Various government credit programs, under specific conditions, offer borrowers certain protections against foreclosure.

**Force Majeure:** Events that are beyond the control of a contractor, such as earthquakes, epidemics, blockades, wars, acts of sabotage, and archeological site discoveries.

**Foreclosure:** Method of enforcing payment of a debt secured by a mortgage by seizing the mortgaged property. Foreclosure terminates all rights that the mortgagor has in the mortgaged property upon completion of due process through the courts.

**Forgive:** To grant relief from all or part of a debt under statutory authority. When an agency forgives a debt, or some portion thereof, it is deciding that the amount being waived is not now part of the government's claim.

**Full Faith and Credit:** The pledge of the general taxing power of a government to pay its debt obligations.

## G

**General Obligation (GO) Bond:** A municipal security that has payments secured by a pledge of the full faith and credit of the issuer. The issuer covenants to meet payment requirements through every legal means at its disposal. It generally is considered to be the strongest form of an uninsured security pledge.

**Good Faith Deposit:** A cash deposit in an amount equal to two percent of the bond issue required upon the award to an underwriter to demonstrate the intent to accept the bonds when tendered.

**Governmental Accounting Standards Board:** Established by the Financial Accounting Foundation, the board writes accounting procedures for governmental bodies that, after approval by the federal government, become generally accepted accounting principles (GAAP).

**Government Sponsored Enterprise:** A shareholder owned and operated financial institution, chartered by the federal government, that facilitates the flow of investment funds to specific economic sectors, thereby providing access to national capital markets. The activities of these private entities are not included in federal budget totals. But because of their special relationship to the government, GSEs provide detailed statements as supplementary information for budget presentation. Examples of GSEs include the Federal National Mortgage Association (Fannie Mae), the Student Loan Marketing Association (Sallie Mae), and the Federal Home Loan Mortgage Corporation (Freddie Mac).

**Governmental Purpose Bond:** A term in the Internal Revenue Code for a tax-exempt bond that is secured by governmental revenues or whose proceeds are used for a general governmental purpose (as opposed to a private activity bond).

**Grant Anticipation Notes (GANs):** Short-term debt that is secured by grant money expected to be received after debt is issued. Financial institutions may buy anticipation notes on behalf of project sponsors in advance of receiving other financial assistance, to enable a faster project start. Helps project sponsors advance projects, especially when unable to access capital markets.

**Grant Anticipation Revenue Vehicles (GARVEEs):** A GARVEE is any bond or other form of debt repayable, either exclusively or primarily, with future federal-aid highway funds under Section 122 of Title 23 of the United States Code. Although the source of payment is federal-aid funds, GARVEEs cannot be backed by a federal guarantee, but are issued at the sole discretion of, and on the security of, the issuing entity.

**Gross Pledge:** A pledge of all targeted revenues to the payment of debt service before the deduction of any operation and maintenance expenses.

**Gross Proceeds:** The total proceeds of a bond issue, including: the original issue proceeds, the investment earnings on obligations acquired with the bond proceeds (including the repayment of principal), and any sums available to pay the issue's debt service.

**Guarantee:** A contract(s) in which a financial institution agrees to take responsibility for all or a portion of a project sponsor's financial obligations for a project under specified conditions.

**Guaranteed Investment Contracts (GICs):** Investment products with a typical maturity of less than ten years that are offered by financial institutions, and that pay investors a fixed rate of return. This rate of return normally follows the current yield on high-grade debt securities.

## H

**H.R. 3838:** Refers to the Tax Reform Act of 1986 that revised existing federal tax law including provisions affecting tax-exempt bond issues and the condition of tax-exempt bond interest in the hands of bondholders.

## I

**Impact Fee:** A fee assessed against private developers in compensation for the new capacity requirements their projects impose upon public facilities.

**Indemnification:** The state of agreement in which one party to a securities transaction agrees to pay the expenses incurred by another party for whatever situations are set forth in the agreement.

**Indenture:** A legal document describing in specific detail the terms and conditions of a bond offering, the rights of the bondholder, and the obligations of the issuer to the bondholder. The document is alternatively referred to as a bond resolution or deed of trust.

**Industrial Development Bonds (IDBs) or Industrial Revenue Bonds (IRBs):** Securities issued by an entity to finance the business of a private corporation. The security backing for such issues is not the credit of the issuer, but rather the credit of the private corporation.

**Initial Offering Price:** The percentage of par price at which the original purchaser intends to market an issue. This price is based on yield to maturity.

**Installment Loan:** An obligation to repay monies borrowed at fixed intervals over time.

**Institutional Investor:** A financial institution such as a mutual fund, insurance company, or pension fund that purchases securities in large quantities.

**Insurance:** Type of guarantee in which any agency pledges the use of accumulated insurance premiums to offset the cost of default on the part of borrowers. "Loan insurance" is considered the equivalent of a "loan guarantee."

**Intelligent Transportation Systems:** The application of advanced electronics and communication technologies to enhance the capacity and efficiency of surface transportation systems, including traveler information, public transportation, and commercial vehicle operations.

**Interest:** Sum paid or calculated for the use of capital. Financing interest is the charge assessed as a cost of extending credit as distinguished from additional interest which is the charge assessed on delinquent debts in order to compensate the federal government for the time value of money owed and not paid when due. Additional interest is accrued and assessed from the date of delinquency.

**Interest Method:** Method used to amortize the premium or discount of an investment in bonds, or to amortize the subsidy cost allowance of direct loans. Under this method, the amortization amount of the subsidy cost allowance equals the effective interest minus the nominal interest of the direct loans. The effective interest equals the present value of the direct loans times the effective interest rate (the discount rate). The nominal interest equals the nominal amount (face amount) of the direct loans times the stated interest rate (the rate stated in the loan agreements).

**Interest Payment Date:** The date on which interest is due to bondholders.

**Interest Rate Swap:** An agreement between two parties to exchange future flows of interest payments. One party agrees to pay the other at a fixed rate; the other pays the first party at an adjustable rate.

**Interest Subsidy:** A subsidy provided by a financial institution (such as multi-lateral lenders, state infrastructure banks, or export credit agencies) to lower overall financing costs for project sponsors. With this tool, project sponsors repay loans at less than current market rates. Market rates may be determined by the cost of borrowing through conventional issues of comparable duration.

**Interim Financing:** Financing needed to meet payment requirements between the time of closing and when the project begins to generate revenue. A construction fund is often set up as part of this financing.

**Inverted Yield Curve:** When short-term interest rates are higher than long-term rates.

**Investment Banker:** An individual belonging to a firm engaged in the financing of capital. Investment bankers are normally in the practice of purchasing new issue offerings for resale to investors with whom they communicate.

**Investment Grade:** Describes the top four rating categories of relatively secure bonds suitable for a conservative investor. Standard & Poor's rating service looks upon all bonds between the AAA and BBB ratings as investment grade. Generally speaking, any bonds rated below BBB are considered to have speculative features and are deemed sub-investment grade or junk bonds.

**ISTEA:** Intermodal Surface Transportation Efficiency Act of 1991, signed into law by President Bush in December 1991. The Act provided for the authorization of \$155 billion in Federal monies from FY 1992 to FY 1997.

**Issuance costs:** The costs incurred by the issuer in connection with its offering. These include underwriter spread, feasibility studies, and various professional fees.

**Issue:** A specific group of securities issued by an issuer.

**Issuer:** The public entity borrowing money through the issuance of securities.

## J

**Joint Account:** An underwriting account formed by two or more dealers.

**Junior Debt (or Junior Lien Bonds):** Debt having a subordinate or secondary claim on an underlying security or source of payment for debt service, relative to another issue with a higher priority claim. (See Subordinate Claim.)

**Junk Bonds:** High-risk, high-return bonds that are below investment grade in rating.

## K

## L

**Late Charges:** Amounts accrued and assessed on a delinquent debt; the term includes administrative costs, penalties, and additional interest.

**Lead Manager:** The manager(s) participating in a securities offering responsible for maintaining the books of account for the offering.

**Lease-Purchase Agreement:** Essentially an installment sale in which a lease provides a means for the lessee to eventually acquire the leased property or asset.

**Letter of Credit:** A form of loan from a financial institution to be used only in the instance of a shortfall in net revenue for debt service (i.e., a contingent loan). A letter of credit is security provided directly to the lender/bondholders (via a bond trustee), rather than to the borrower/project sponsor.

**Level Debt Service:** Principal and interest payments that together represent equal annual payments over the life of a loan. Principal may be serial maturities or sinking fund installments.

**Leverage:** A financial mechanism used to increase available funds usually by issuing debt (typically bonds) or by guaranteeing or otherwise assuming liability for others' debt in an amount greater than cash balances.

**Leveraged Lease:** A type of lease in which a lender lends funds to the lessor (normally more than 50 percent of what is required to buy the property). The leased property serves as part of the collateral behind the lender/lessor loan, but other credit of the lessor is generally immune from any recourse.

**Leveraging Ratio:** Measures the extent to which a given investment attracts additional capital. In the context of this report, the leveraging ratio of federal funds is equal to the total project costs divided by the budgetary cost of providing federal credit assistance.

**Liability:** Amount owed (i.e., payable) by an individual or entity, such as for terms received, services rendered, expenses incurred, assets acquired, construction performed, and amounts received but not yet earned.

**Lien:** A security interest (possibly a mortgage) in a piece of property.

**Limited Liability Bonds:** Bonds that do not carry the full faith and credit pledge of a municipality.

**Limited Tax Bond:** A general obligation bond whose backing is only a specified portion of the taxing power of the issuer.

**Line of Credit:** A form of loan to be used only in the instance of a shortfall in net revenue for debt service or other financial commitments (i.e., a contingent loan). A line of credit, while similar to a letter of credit, is security available directly to the borrower/project sponsor with flexibility in use of the funds.

**Liquidation:** Process of converting collateral to cash.

**Liquidity:** Refers to an investor's ability to sell an investment as a means of payment or easily convert it to cash without risk of loss of nominal value.

**Litigation:** Legal action or process taken for full or partial debt recovery.

**Loan Guarantee:** Contingent liability created when the federal government assures a private lender who has made a commitment to disburse funds to a borrower that the lender will be repaid to the extent of a guarantee in the event of default by the debtor.

**Loan Guarantee Subsidy Cost:** Estimated long-term cost to the federal government of loan guarantees calculated on a present value basis, excluding administrative costs. The cost is the present value of estimated net cash outflows at the time the guaranteed loans are disbursed by the lender. The discount rate used for the calculation is the average interest rate (yield) on marketable Treasury securities of similar maturity to the loan guarantees, applicable to the time when the guaranteed loans are disbursed.

**Loan Servicer:** A public or private entity that is responsible for collecting, monitoring, and reporting loan payments. In the context of this report, a loan servicer would also assist in originating the loan.

**Loan:** Legally binding document that obligates a specific value of funds available for disbursement. The amount of funds disbursed is to be repaid (with or without interest and late fees) in accordance with the terms of a promissory note and/or repayment schedule.

**Loan-to-Value Ratio:** Represents the proportion of the amount of a loan to the value being pledged to secure that loan. It is derived as follows: total financing costs (i.e., the market value of the collateral plus the financed portion of any closing costs, insurance premiums, or other transaction-related expenses less the borrower's cash down payment) divided by the market value of the collateral.

## M

**Management Fee:** The percentage of the underwriting spread that goes to the manager(s) of the account.

**Manager:** The underwriting firm(s) responsible for dealing with the issuer on behalf of the entire group of underwriters.

**Mandatory Sinking Fund:** A standard means of paying term bonds in which deposits are made to an account for the express purpose of gaining interest and then being applied toward the term bond repayment.

**Mandatory Spending:** Outlays generally not controllable through the congressional appropriation process. Mandatory amounts are budget authority or outlays that cannot be increased or decreased in a given year without a change in substantive law. Entitlement programs (e.g., food stamps, Medicare, veterans' pensions) are chief examples of mandatory programs, whereby Congress controls spending indirectly, by defining eligibility and setting benefit payment rules, rather than directly through the appropriation process. With regard to the federal-aid highway program, mandatory spending refers to outlays resulting from obligations of contract authority programs not subject to annual obligation limitations, such as Minimum Allocation, Emergency Relief, and Demonstration Project spending.

**Mark-Down:** The difference between the cost of securities and their current price, in cases when the prices have fallen, or the amount received by a dealer selling securities to a third party for a customer.

**Mark-to-Market:** A process whereby the value of an inventory position of securities is adjusted on a dealer's records to its current market value.

**Market Risk:** The risk to bondholders that changes in the prevailing market interest rates will adversely affect the price of the bonds they hold.

**Market Value:** The current price of a security in its trading market.

**Master Lease:** A lease in which the lessee has the option (as defined by the leasing agreement) to add property to the existing lease.

**Master Resolution:** The document stating the general terms under which an issuer may offer more than one series of bonds.

**Maturity Date:** The date on which the specified principal amount of a security becomes due.

**Moral Obligation Bond:** A municipal security that does not have the backing of the full faith and credit of the issuer, but which has means of payment morally (as opposed to legally) obligated to it.

**Municipal Bond:** A tax-exempt security issued on behalf of a state or any subdivision thereof.

**Municipal Bond Investors Assurance Corporation (MBIA):** An insurance company that will issue policies covering the payment of principal and interest on an issue. MBIA-insured bonds are rated AAA.

**Municipal Lease (Tax-Exempt Lease):** A lease agreement in which the lessee is a state or local government and that exhibits interest payments that are exempt from the gross income portion of federal income tax.

**Municipal Securities Rulemaking Board (MSRB):** The primary rulemaking authority of the municipal securities industry.

## N

**National Association of Securities Dealers (NASD):** A self-regulating body in charge of establishing rules geared to the protection of the investing public.

**Nationally Recognized Municipal Securities Information Repository (NRMSIR):** Organizations established in order to facilitate the delivery by underwriters of municipal debt of disclosure materials for public availability as mandated by the SEC.

**Negative Covenant or Negative Pledge Agreement:** An agreement by whatever entity is providing the security backing for an issue not to incur any new debt that will encumber use of revenues targeted for debt service payments.

**Negotiated Sale:** An underwriting situation in which the underwriters of a securities offering are selected well in advance of the sale of the securities. The terms of the underwriting agreements are subject to negotiation.

**Net Interest Cost:** Represents the average coupon rate of a bond issue, weighted to reflect the term and adjusted for the premium or discount. It does not consider the time value of money.

**Net Lease:** A lease requiring rental payments to be set by the particulars of the debt securities issued to finance the subject of the lease. Certain costs of the lessor resulting from lease obligations may or may not be covered by the payments.

**Net-Net Lease or Triple-Net Lease:** Leases requiring the lessee to include as part of its rental payments all of the following: amounts required by the debt securities issued to finance the subject of the lease and all maintenance, tax, and insurance costs of the leased premises.

**Net Pledge:** The pledge to debt service payment requirements of targeted revenues minus all operation and maintenance costs.

**Net Proceeds:** Total bond proceeds less the portion of the proceeds invested in a reserve fund.

**New Money Issue:** A bond issue used to finance a new capital project (rather than a refunding).

**Net Revenues:** Gross revenues less operating and maintenance expenses. Net revenues are divided by debt service to get debt service coverage ratio.

**Nominal (or Face or Par) Value or Amount:** Amount of a bond, note, mortgage, or other security as stated in the instrument itself, exclusive of interest or dividend accumulations. The nominal amount may or may not coincide with the price at which the instrument was first sold, its present market value, or its redemption price.

**Nominal Yield:** The face interest rate of a bond.

**Non-Callable Bond:** A bond that is not redeemable by the issuer prior to the maturity date.

**Non-Current Receivable:** a receivable on which payment will not be due within 12 months of the reporting period.

**Non-Federal Match:** The commitment of state or other non-federal funds required to receive federal contributions. For example, the U.S. SIB program requires a non-federal match for capitalization funds, which is 25 percent of the amount of federal funds. The match may be lower in states which have a sliding scale rate based on the percentage of federal land in the state.

**Non-Transportation Revenues:** The revenue earned from activities not associated with the provision of transit service. Non-transportation revenues include revenues earned from sales of maintenance service on property not owned or used by the transit agency, rentals of revenue vehicles to other operators, rentals of transit agency buildings and property to other organizations, parking fees generated from parking lots not normally used as park-and-ride locations, and donations.

**Notes:** Interest-bearing certificates of governments or corporations that come due in a shorter time than bonds. Treasury securities are notes if they mature in 10 years or less; municipal notes have maturities of up to approximately one year.

## O

**Obligation Authority:** The amount of budgetary resources (including new budget authority, balances of unobligated budget authority carried over from prior years, and obligation limitations) available for obligation in a given fiscal year. With regard to the federal-aid highway program, obligation authority often refers to the amount of federal-aid obligation limitation, established annually by Congress in appropriation acts, that is allocated to the states and controls the amount of apportioned contract authority that can be obligated by the states in a given fiscal year.

**Odd Coupon:** A coupon or interest payment that is longer or shorter than the normal six-month payment. It generally refers to the first interest payment of a new bond issue.

**Offering Price:** The price investors in an issue receive when the original purchaser (underwriter) offers the securities for sale.

**Official Statement (OS):** A document generally required for each new issue that contains information about the nature of the security being offered and the pledged sources of payment behind the security.

**Open-Ended Indenture:** An indenture that allows for additional bond issues governed under the original indenture.

**Operating Lease:** A type of lease that covers only a portion of the useful life of the leased property. This lease, generally covering less than 75 percent of the property's useful life, is characterized in this fashion for accounting and financial reporting purposes.

**Operations and Maintenance Fund:** A fund established in a revenue bond indenture that receives money to be used for meeting the costs of operating and maintaining the project.

**Order:** A commitment made by a buyer to buy a stated number of bonds at the offered price.

**Original Issue Discount:** The discount from par at which an original offering is sold.

**Original Proceeds:** Net proceeds (total proceeds less the costs of issuance) received from a bond sale.

**Original Purchaser:** The purchaser (usually the underwriter) of an original issue directly from the issuer.

**Outlay:** An official payment of funds.

**Over the Counter (OTC):** An organized method of trading securities other than the stock exchanges.

**Overlapping Debt:** The proportionate share of debt in addition to a community's own direct obligations, such as those issued by a county or school district in which it is located.

## P

**Par or Par Value:** The principal amount of a security, generally the amount found on the face of the security.

**Par Bond:** A bond that is sold neither at a discount nor at a premium.

**Parity Debt:** Debt obligations issued or to be issued with an equal claim to other debt obligations on the source of payment for debt service.

**Pay-As-You-Go Financing:** Describes government financing of capital outlays from current revenues or grants rather than by borrowing.

**Paying Agent:** The institution chosen by the issuer to make principal and interest payments to bondholders.

**Penalty:** Punitive charge assessed for delinquent debts. The rate to be assessed is capped by law.

**Personal Property:** Tangible, movable assets, such as automobiles, planes, and boats.

**Pledge:** A promise to use targeted sources of revenue for the payment of debt service. A pledge differs from a lien in that the targeted source is not readily available or identifiable (e.g., revenues from the project being financed by the bonds that has not yet been constructed).

**Point:** One percent of the face value of a bond.

**Pre-Foreclosure Sale:** The opportunity for borrowers who cannot meet their obligation (repayment of a loan) to sell their property in order to avoid foreclosure. Borrowers who agree to sell their property using this method are generally relieved of their loan obligation.

**Preliminary Official Statement (POS):** The draft of the Official statement (without price, yield, or maturity information) that is used for the marketing of the bonds prior to issuance.

**Preliminary Rating:** A credit opinion from a rating agency based on a preliminary assessment assigned to a proposed bond issue.

**Premium:** The amount by which the price of a bond exceeds the face value of the bond.

**Prepayment:** Partial or full repurchase or other advance deposits of outstanding loan principal and interest by the borrower/debtor. The repurchase may be made at a discount from the current outstanding principal balance.

**Present Value (PV):** The value of future cash flows discounted to the present at a certain interest rate (such as the entity's cost of capital or funds), assuming compounded interest.

**Primary Market:** The market for new security offerings.

**Principal Amount:** The face amount of a bond payable at maturity. Accrued interest is not a portion of this amount.

**Private Activity Bond:** Can be defined as either of two things: (1) a bond of which more than 10 percent of the proceeds will be used for nongovernmental purposes, and which is going to be repaid from revenues received from a private entity; or (2) a bond that will have the lesser of five percent or \$5 million of the proceeds being used for loans to nongovernmental entities.

**Pro Forma:** A projection for a revenue project that includes expected costs and income from the project.

**Proceeds:** The money received by the issuer from the original delivery of an issue. The total proceeds include any variation of the price from par (discounts or premiums) and accrued interest.

**Project Costs:** All outlays expected to be associated with the financing of a project that are legally able to be included in the principal amount of the bond issue. These outlays may include the costs of acquisition, construction costs, equipment use and acquisition costs, capitalized interest expenses, reserve funding requirements, printing costs, legal fees, and the like.

**Project Revenues:** All rates, rents, fees, assessments, charges, and other receipts derived by a project sponsor from a project.

**Prospectus:** The statement that must be filed with the Securities and Exchange Commission containing similar information to that found in an Official Statement, namely pertinent information about the issue and the issuer.

**Provisional Rating:** An estimate of what the credit quality of an issue is expected to be after an interim period.

**Prudent Man Rule:** The code of conduct that a fiduciary is expected to follow.

**Public Sale:** Sale of an issue through a competitive bidding process in which the bidder offering to buy the issue and the lowest cost of funds to the issuer is awarded the bonds.

**Put Bond:** A bond that allows the bondholder to redeem the bond at a specific price either during a specified time period or on or after a specific date. The issuers of put bonds must have the means available to pay off these bonds should they be tendered.

## Q

**Quotation or Quote:** A market indication of the price at which a security can be bought or sold.

**Qualified Bid:** A secondary market bid that is subject to conditions (i.e., an acceptable legal opinion).

**Qualified Legal Opinion:** A conditional statement regarding the legality of securities.

## R

**Ramp-Up Phase:** The phase in a project's life cycle immediately following construction. It is during this phase, the early years of operation, that a project's revenue stream is established.

**Rate Covenant:** A contractual agreement in the legal documentation of a bond issue requiring the issuer to charge rates or fees for the use of specified facilities or operations at least sufficient to achieve a stated minimum debt service coverage level.

**Rating:** An evaluation made (for a fee) by rating agencies of the creditworthiness of an issue.

**Rating Agency:** An organization that assesses and issues opinions regarding the relative credit quality of bond issues. The three major municipal bond rating agencies are Fitch Investors Service, Moody's Investors Service, and Standard and Poor's.

**Real Property:** Tangible, non-movable assets, such as land and buildings.

**Receivable:** Amount owed to a lender by an individual, organization, or other entity to satisfy a debt or a claim. Examples of receivables generated by government activities include amounts due for taxes, loans, the sale of goods and services, fines, penalties, forfeitures, interest, and overpayments of salaries and benefits.

**Recourse:** Rights of a holder in due course of a financial instrument (such as a loan) to force the endorser on the instrument to meet his or her legal obligations for making good the payment of the instrument if dishonored by the maker or acceptor.

**Recovery:** The dollars collected subsequent to a purchase, net of expenses, on a guaranteed loan.

**Recovery Rate:** The total actual and projected collections net of expenses subsequent to a purchase as a percentage of the total projected dollars purchased for a given cohort of guaranteed loans.

**Redemption:** The retirement of outstanding bonds prior to maturity by means of a cash payment. Certain bonds are redeemable ("callable") at a premium on certain dates. Redemption information is set forth in the indenture.

**Refunding:** Using a new bond issue to replace an existing bond issue either to decrease the annual debt service requirements of the issuer or to alter the restrictions included in the indenture of the issue being refunded.

**Registered Bond:** A bond the owner of which is recorded by the paying agent of the issue. A registered bondholder is entitled to the income from the bond.

**Reoffering Price:** The price at which the original purchasers of an issue offer the securities to investors.

**Repayment Agreement:** Agreement that establishes the terms and conditions governing the recovery of a debt of the lender and borrower when credit is initially extended or a debt is rescheduled. (See “Reschedule.”)

**Reschedule:** Procedure of establishing new terms and conditions to facilitate repayment of a debt. Also called restructuring, refinancing, and reamortizing, rescheduling includes establishing new terms as a result of changes in authorizing legislation (e.g., congressional action allowing farmers to have an additional 5 years to pay off their loans).

**Reserve Fund:** A fund established under the indenture to meet expense or debt service payment shortfalls.

**Revenue Anticipation Note (RAN):** A short-term debt instrument the security pledge of which is the receipt of anticipated future revenues.

**Revenue Bond:** A bond that is payable from a specific source of revenue (typically from the facility for which the bond was originally issued) and that is not backed by a pledge of the full faith and credit of the issuer.

**Revolving Loan Fund:** Financing tool that recycles funds by providing loans, receiving loan repayments, and then providing further loans.

**Risk Category:** Subdivisions of a cohort of direct loans or loan guarantees into groups of loans that are relatively homogeneous in cost, given the facts known at the time of obligation or commitment. Risk categories will group all loans obligated or committed for a program during the fiscal year that share characteristics predictive of defaults and other cost.

**Rolling Stock:** The revenue vehicles used in providing transit service for passengers.

## S

**Safe Harbor True Lease:** A means by which a business can acquire capital assets to offset its tax liabilities.

**Sale and Leaseback:** A transaction in which an issuer will purchase property and immediately lease the property back to the entity from which it was purchased for operation. The lease payments of the seller serve as the revenue required to pay debt service on the issue that allowed the issuer to purchase the property.

**Secondary Market:** The market in which securities are traded after they have been sold by the original investors.

**Secured Debt:** Debt for which collateral has been pledged.

**Senior Debt or Senior Lien Bonds:** Debt obligations having a priority claim on the source of payment for debt service.

**Serial Bonds:** Bonds that are scheduled to mature over a number of years (as distinct from term bonds).

**Servicer:** Entity under contract to a lender or agency to perform account-servicing functions.

**Settle:** Resolving a debt or claim.

**Settlement Date:** The day on which there is delivery and payment for a bond.

**Short-Term:** Obligations that generally have a maturity of less than one year.

**Sinking Fund:** A fund accumulated over a period of time for retirement of debt.

**Soft Loan:** Loan provided to a project sponsor with flexible repayment terms. Soft loans are generally subordinate to other debt, can have variable repayment schedules and extended terms, and subsidized interest rates.

**Special Assessment:** A charge imposed against certain properties to defray part or all of the cost of a specific improvement or service deemed to primarily benefit those properties.

**Special District:** A single purpose or local taxing district organized for a special purpose such as a road, sewer, irrigation or fire district.

**Special Tax Bond:** Any bond secured by a special form of tax (e.g., a tax on a certain commodity).

**Split Ratings:** Ratings assigned by more than one recognized rating service on a given issue that differ substantially from one another.

**Spread:** (1) The discount (usually computed in basis points per bond) an underwriter receives for purchasing a bond issue—the difference between what the underwriter pays for the issue and the resale price to the public. (2) The difference between the bid and offered price in the market for a security.

**Standby Letter of Credit:** A letter of credit that provides for a single draw should the bonds be declared to be in default and therefore accelerated by the trustee involved.

**Start-Up Project:** A separate, freestanding and new facility dependent on its own revenue stream to generate earnings to cover operating and capital costs.

**State and Local Government Series (SLGS):** A type of U.S. Treasury security used by tax-exempt issuers to tailor the investment of bond proceeds to avoid earnings excessive arbitrage profits.

**State Infrastructure Bank (SIB):** A state or multi-state revolving fund that provides loans, credit enhancement, and other forms of financial assistance to surface transportation projects.

**State Transportation Improvement Program:** A short-term transportation-planning document covering at least a three-year period and updated at least every two years. The STIP includes a priority list of projects to be carried out in each of the three years. Projects included in the STIP must be consistent with the long-term transportation plan, must conform to regional air quality implementation plans, and must be financially constrained (achievable within existing or reasonably anticipated funding sources).

**State Transportation Plan:** The transportation plan covers a 20-year period and includes both short- and long-term actions that develop and maintain an integrated, intermodal transportation system. The plan must conform to regional air quality implementation plans and be financially constrained.

**Stated Interest Rate:** The interest rate used to compute the annual interest payable on a security.

**Stress Test:** A financial test applied by rating agencies to assess the claims-paying ability of municipal bond insurers. The stress test subjects a bond insurer's portfolio to a severe and prolonged economic downturn that produces an extraordinary level of bond defaults. In order to receive a AAA rating on its claims-paying ability, a bond insurer must be able to pay all projected claims through the peak years of the stress period and be left with sufficient resources to write new business when more stable economic conditions resume.

**Subordinate Claim:** A claim on an underlying source of payment for debt service that is junior or secondary to that securing another debt obligation. (See "Junior Debt.")

**Subsidy Cost:** The estimated long-term cost to the federal government of providing credit assistance (e.g., direct loans or loan guarantees), calculated on a net present value basis at the time of disbursement and excluding administrative costs.

**Supplemental Indenture:** A supplement to an outstanding indenture that does not fundamentally alter an outstanding indenture but functions to settle an inconsistency or remedy a formal defect.

**Syndicate:** a group of underwriters who purchase a new issue and resell it to the public.

## T

**Take:** To buy at the offered price.

**Tax and Revenue Anticipation Notes (TRANS):** Short-term debt that will be retired with taxes and other government revenues to be collected at a later date.

**Tax Anticipation Notes (TANs):** Short-term debt that will be retired with taxes to be collected at a later date.

**Tax-Exempt Commercial Paper (TECP):** An unsecured debt obligation with a maturity of less than one year, the proceeds of which are used to support current operations or to provide interim financing of capital investments

**Tax-Exempt Lease (Municipal Lease):** A lease agreement in which the lessee is a state or local government and that exhibits interest payments that are exempt from the gross income portion of federal income tax.

**Tax Increment Bond:** A bond secured by the excess dollars of specific taxes after taking into account the history monetary yield of such taxes.

**Tax Increment Financing:** The dedication of incremental increases in real estate taxes to repay an original investment in improved public facilities that created increased real estate values.

**Tax Reform Act of 1986:** Legislation that produced profound changes in the municipal practice of issuing tax-exempt debt securities.

**Tax Refund Offset:** Reduction of a debtor's tax overpayments by the amount of legally enforceable debt owed to a federal agency. A tax refund offset is a type of administrative offset.

**TE-045 Innovative Finance Initiative:** A research program begun by the Federal Highway Administration in 1994 in response to Executive Order 12893. This finance initiative is designed to increase investment, accelerate projects, promote the use of existing innovative finance provisions, and establish the basis for future initiatives by waiving selected federal policies and procedures, thus allowing specific transportation projects to be advanced through the use of non-traditional finance mechanisms.

**Term Bonds:** Bonds that have a single maturity (as distinct from serial bonds).

**Title 23 of the United States Code:** Highway title that includes many of the laws governing the federal-aid highway program. The title embodies substantive provisions of law that Congress considers permanent and need not be reenacted in each new highway authorization act.

**Title 49 of the United States Code:** Transportation title that includes laws governing various transportation-related programs and agencies, including the Department of Transportation, general and intermodal programs, interstate commerce, rail and motor vehicle programs, aviation programs, pipelines, and commercial space transportation.

**Tombstone:** An advertisement of a new issue that states the basic information about the securities offering (principal amount and terms), the underwriters involved, and how an Official Statement may be obtained.

**Total Bonded Debt:** A municipality's total general obligation debt outstanding.

**Total Direct Debt:** A municipality's combined sum of total bonded debt and any unfunded debt.

**Transportation Infrastructure Finance and Innovation Act (TIFIA):** A federal transportation credit program authorized as part of the Transportation Equity Act for the 21st Century (TEA-21) that provides direct federal loans, lines of credit, and loan guarantees provided through U.S. DOT to large projects of national significance, under criteria developed by Congress.

**True Interest Cost (TIC):** The true cost of borrowing money. Computes the interest cost on a discounted present value method.

**Trust Indenture:** The contract between bondholders and an issuer securing the prepayment of debt. It sets forth how all monies of issuers will be applied to operating costs, debt repayment, reserve funds, and construction funds.

**Trustee:** The bank or trust company that serves both as the custodian of funds and the official representative of an issue's securities holders.

**Turnkey:** A generic term for a variety of public/private partnership arrangements whereby a public sector entity awards a contract to one or more private firms to undertake the development, construction, and/or operation of an infrastructure project for a predetermined period of time before turning the project back over to the public entity. Turnkeys may take various forms, including design-build-transfer and build-operate-transfer.

## U

**Underwrite:** To assume the liability of delivering to the issuer the expected proceeds of an issue by agreeing to buy the issue in its entirety.

**Underwriter:** The dealer who buys the new issue of securities from the issuer and offers the bonds for sale to investors.

**Unlimited Tax Bonds:** Bonds backed by taxes that are not limited by rate.

**Unobligated Balance:** The portion of obligation authority (including new budget authority and balances of unobligated budget authority carried over from prior years) that has not yet been obligated. With regard to the federal-aid highway program, the term generally refers to balances of apportioned contract authority that the states have been unable to obligate due to annual obligation limitations imposed by Congress.

**Upgrade:** An improved rating by a rating service.

## V

**Variable Interest Rates:** Interest rates that change according to a formula set forth in the securities issue.

**Visible Supply:** The total dollar value of new securities expected to be offered over the next 30 days.

**Volume Cap:** The limitation on the aggregate annual amount of private activity bonds that may be issued in each state as stated in the Tax Reform Act of 1986 and subsequently amended.

## W

**Warrant:** A certificate giving the holder the right to purchase a bond at a specific price during a certain time period.

**Workout Group:** Group established within an agency, whose sole purpose is to resolve or attempt to resolve troubled debts, including those debts that demand that extreme measures be taken to protect the government's interests.

**Write-Off:** Occurs when an agency official determines, after all appropriate collection tools have been used, that a debt is not collectible. Active collection on an account ceases and the account is removed from an entity's receivables.

## X

## Y

**Yield:** The annual rate of return on an investment expressed as a percentage.

**Yield Curve:** Relationship between short- and long-term interest rates.

**Yield to Average Life:** The yield resulting from the use of average maturity instead of the maturity date of the issue in the yield calculation.

**Yield to Call:** The yield derived when the sum of interest payments to the call date is used as the cash flow when the issue is redeemed at its call price.

**Yield to Maturity:** The average annual percentage of return on a security assuming the interest is reinvested at the same yield and that the security is held to maturity.

## Z

**Zero Coupon Bond:** A bond that is originally issued at a deep discount from its par or face amount and which bears no current interest. The bond is bought at a discount price that implies a stated rate of return calculated on the basis of the bond being payable at par at maturity. The bond is redeemable at its face value at maturity (See "Capital Appreciation Bond.")

## **TECHNICAL ANNEX 5: LITERATURE AND RESOURCES**

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The Federal Transit Administration (FTA), the Transportation Research Board's (TRB's) Transit Cooperative Research Program (TCRP), and other interested parties have sponsored a number of reports that analyze many of the traditional financing mechanisms as well as more recent innovative mechanisms applied by transit agencies today. This section briefly summarizes some of these reports, specifically

- TRB's *TCRP Legal Research Digest 13: Report on Innovative Financing Techniques for Transit Agencies* (1999);
- FTA's *Innovative Financing Techniques for America's Transit Systems* (1998);
- TRB's *TCRP Report 31: Funding Strategies for Public Transportation, Volume 2: Casebook* (1998);
- FTA's *Innovative Financing Handbook* (1995);
- FTA's *How to Evaluate Opportunities for Cross-Border Leasing and Certificates of Participation in Public Transportation* (1993); and
- FTA's *Introduction to Public Finance and Public Transit* (1993).

Following the synopsis of these reports is a listing of other resource material and relevant websites for those seeking additional information.

### **TRB's TCRP LEGAL RESEARCH DIGEST 13: REPORT ON INNOVATIVE FINANCING TECHNIQUES FOR TRANSIT AGENCIES (1999)**

This report describes the opportunities, risks, legal considerations, and other factors related to a number of financing tools available to transit agencies, including certificates of participation (COPs), joint development, cross-border leases, U.S. leasehold interest, farebox revenue-backed bonds, and State Infrastructure Banks (SIBs). The report also includes a summary matrix that indicates the various finance techniques being employed by nearly 100 transit agencies in the United States.

### **FTA's INNOVATIVE FINANCING TECHNIQUES FOR AMERICA'S TRANSIT SYSTEMS (1998)**

This document provides a concise overview of the characteristics and benefits of various financing approaches available to transit agencies in the United States, including COPs, lease-backed bonds, cross-border leases, domestic leases, joint development, turnkey arrangements, and state revolving loan funds.

### **TRB's TCRP REPORT 31: FUNDING STRATEGIES FOR PUBLIC TRANSPORTATION, VOLUME 2: CASEBOOK (1998)**

Published by TRB (TCRP) in 1998, TCRP Report 31 details a number of examples of the uses of transit funding sources and associated financing strategies. Reviews include case studies of various financing and funding mechanisms.

## **FTA's INNOVATIVE FINANCING HANDBOOK (1995)**

The Innovative Financing Handbook provides summary descriptions of a number of financing mechanisms and tools available to transit operators. Tools evaluated include COPs, state revolving loan funds, leasing options, joint development, cross-border leasing, turnkey, delayed local match, and toll revenue credits. The Innovative Financing Handbook was published in 1995 (i.e., before TEA-21 and other relevant legislation); consequently, some of the particular issues related to certain financing tools, such as mandates and restrictions, may no longer be relevant.

## **FTA's HOW TO EVALUATE OPPORTUNITIES FOR CROSS-BORDER LEASING AND CERTIFICATES OF PARTICIPATION IN PUBLIC TRANSPORTATION (1993)**

This report provides detailed summary and analysis of cross-border leasing and COPs, analyzing the costs and benefits of each financing mechanism from the transit providers' perspective. While the general description and analysis provided are informative, because the report was published in 1993, the examples and mandates associated with cross-border leasing and COPs provided therein may be of limited value because of changes in federal transportation policy and legislation since 1993.

## **FTA's INTRODUCTION TO PUBLIC FINANCE AND PUBLIC TRANSIT (1993)**

Introduction to Public Finance and Public Transit provides thorough conceptual descriptions of public transit finance issues, including tax-exempt debt, competitive versus negotiated sale of debt, bond ratings, lease arrangements, advance construction, pay-as-you-go versus debt financing, cross-border leasing, turnkey procurements, and joint development. Given that the document was published in early 1993, however, well before TEA-21 and other federal legislation affecting transit financing were enacted, the examples and specific legal restrictions associated with the financing mechanisms described are only of limited value. Nevertheless, the document is useful in terms of describing the concepts as well as advantages and disadvantages of particular financing techniques.

## **OTHER RESOURCE MATERIAL**

Following is a listing of relevant documents, citations, data resources, and websites on the topic of transit capital investment and, in particular, on the application of financing mechanisms.

### **Additional Relevant General Documents**

Federal Highway Administration *Innovative Finance Newsletter and Innovative Finance Quarterly*, published quarterly and posted to the FHWA web page.

[www.fhwa.dot.gov/innovativefinance/ifpubs.htm](http://www.fhwa.dot.gov/innovativefinance/ifpubs.htm)

Federal Highway Administration. "Memorandum: Toll Credit for Non-Federal Share, Section 1111© of TEA-21, Implementing Guidance." August 1998.

Federal Highway Administration. State Infrastructure Bank Primer. September 1997.  
[www.fhwa.dot.gov/innovativefinance/sibprimr.htm](http://www.fhwa.dot.gov/innovativefinance/sibprimr.htm).

Federal Highway Administration. Innovative Finance Brochure.  
[www.fhwa.dot.gov/innovativefinance/brochure/index.htm](http://www.fhwa.dot.gov/innovativefinance/brochure/index.htm)

Federal Transit Administration. *Turnkey Demonstration Program*. 1999.

Federal Transit Administration. *Transit Research and Technology Programs*. 1998.

Transportation Research Board. *TCRP Legal Research Digest 6: Requirements that Impact the Acquisition of Capital-Intensive Long-Lead Items, Right of Way, and Land for Transit*. December 1996 (prepared by Kevin M. Sheys, Robert L. Gunter and James B. McDaniel).

## Relevant Statutes, Regulations, and Guidance

Federal Transit Administration. *Major Capital Investment Projects; Proposed Rule* (proposed rule change re: evaluate “new starts” projects). 1999.

Federal Transit Administration. *Technical Guidance on Section 5309 New Starts Criteria*, July 1999.

Federal Transit Administration. Circular 5200.1. *Full Funding Grant Agreements Guidance*.

Federal Transit Administration. *Financial Plan Guidance*. [www.fta.dot.gov/office/planning/gftfp](http://www.fta.dot.gov/office/planning/gftfp).

Federal transit laws, 49 USC, Chapter 53.

Intermodal Surface Transportation Efficiency Act of 1991, Public Law No. 102-240, 105 Stat. 1914, December 18, 1991 (codified as amended by Public Law 103-272, 108 Stat. 745, July 5, 1994, in scattered sections of 49 and 23 US Code).

Transportation Equity Act for the 21st Century, Pub. L. 105-178, June 9, 1998, 23 USC, 101 note, as amended by the TEA-21 Restoration Act 105-206, 112 Stat. 685, July 22, 1998, 23 USC 101 note.

## Rating Agency Reports and Rating Criteria Documentation

Fitch Ratings. *Transit New Starts: The Promise and Perils of Full Funding Grant Agreements*. April 20, 2001.

Fitch Ratings. *Sales Tax Revenue Bond Rating Guidelines*. September 20, 2002.

Fitch Ratings. *Popularly Leveraging Federal Transportation Grants*. April 30, 2002.

Fitch Ratings. *Municipal Lease Rating Guidelines*. May 30, 2001.

Moody's Investors Service Municipal Credit Research. *Rating Methodology: Mass Transit*. June 2000.

Standard & Poor's. *Public Finance Criteria 2000*. [www.standardandpoors.com/ratings](http://www.standardandpoors.com/ratings).

Standard & Poor's. *Highway Grant Anticipation Revenue Bonds Rating Criteria*. August 29, 2000.

## **Additional Data Resources and Websites**

Federal Highway Administration. SIB web site. [www.fhwa.dot.gov/innovativefinance/sib.htm](http://www.fhwa.dot.gov/innovativefinance/sib.htm).

Federal Highway Administration. TIFIA web site. <http://tifa.fhwa.dot.gov/>

Federal Transit Administration. National Transit Database. [www.ntdprogram.com](http://www.ntdprogram.com)

APTA T-Flex Financing Clearinghouse. [www.apta.com](http://www.apta.com).

TRB-sponsored Innovative Finance Clearinghouse. [www.innovativefinance.org](http://www.innovativefinance.org).

Federal Highway Administration Innovative Finance Home Page.  
[www.fhwa.dot.gov/innovativefinance/](http://www.fhwa.dot.gov/innovativefinance/)

Abbreviations used without definitions in TRB publications:

|         |  |
|---------|--|
| AASHO   | American Association of State Highway Officials                    |
| AASHTO  | American Association of State Highway and Transportation Officials |
| ASCE    | American Society of Civil Engineers                                |
| ASME    | American Society of Mechanical Engineers                           |
| ASTM    | American Society for Testing and Materials                         |
| FAA     | Federal Aviation Administration                                    |
| FHWA    | Federal Highway Administration                                     |
| FRA     | Federal Railroad Administration                                    |
| FTA     | Federal Transit Administration                                     |
| IEEE    | Institute of Electrical and Electronics Engineers                  |
| ITE     | Institute of Transportation Engineers                              |
| NCHRP   | National Cooperative Highway Research Program                      |
| NCTRP   | National Cooperative Transit Research and Development Program      |
| NHTSA   | National Highway Traffic Safety Administration                     |
| SAE     | Society of Automotive Engineers                                    |
| TCRP    | Transit Cooperative Research Program                               |
| TRB     | Transportation Research Board                                      |
| U.S.DOT | United States Department of Transportation                         |