Commission Briefing Paper 5A-12

Traditional Debt Financing as a Transportation Financing Mechanism

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Introduction

This paper is part of a series of briefing papers to be prepared for the National Surface Transportation Policy and Revenue Study Commission authorized in Section 1909 of SAFETEA-LU. The papers are intended to synthesize the state-of-the-practice consensus on the issues that are relevant to the Commission's charge outlined in Section 1909, and will serve as background material in developing the analyses to be presented in the final report of the Commission.

This paper presents information on the use of traditional debt mechanisms to support the financing of transportation infrastructure investment. While this paper is included in a collection of papers on transportation revenue sources, it is important to note that debt is a mechanism to finance (i.e., assemble upfront capital for) transportation investments and must be repaid at a later date or over time. Debt is not a funding source unto its own. This paper addresses debt issuance at both the state and local level but focuses primarily on the debt issuance practices of state-level transportation agencies. The paper defines "traditional" debt financing to include:

- General obligation debt;
- Revenue bonds backed by fuel taxes, other transportation-related fees and taxes, tolls and fare revenues, sales and property taxes, and other revenue sources dedicated at least in part to transportation purposes; and
- Grant anticipation borrowing backed by future federal and state transportation funds.

The paper does not address directly alternative financing mechanisms such as federal credit programs (i.e., TIFIA, RRIF), the State Infrastructure Bank (SIB) program, and other revolving loan fund programs; nor does it address private activity bonds. These topics are addressed in other papers in this series.

Background and Key Findings

Transportation investment represents the largest category of capital spending at the state level, comprising 64 percent of all state capital expenditures in Fiscal Year 2005.[1] State and local governments have a long history of issuing debt to help finance these infrastructure improvements. Driven by increasing demands for capital investment, intense competition among public expenditure needs, and heightened political challenges to expanding annual pay-as-you-go funds, over 80 percent of states (42 of 51, including the District of Columbia) reported having

[1] National Association of State Budget Officers, *2005 State Expenditure Report*, Washington, D.C., Fall 2006, p. 82.

some amount of state-issued debt outstanding for transportation purposes as of the end of 2005.[2] And, 100% of states reported some amount of locally-issued debt outstanding for transportation as of the end of 2004.[3] Yet, among those states and localities, there is a wide variance in the amount and types of debt issued.

Following are several key findings regarding the use of debt to support the financing of transportation infrastructure investment:

- The vast majority of states have some amount of debt outstanding for transportation purposes. The amount of debt, however, varies substantially from state to state and among local jurisdictions.
- While the total amount of debt for highway investment has increased significantly over time, a large portion of the additional indebtedness – over 50 percent of state-issued debt outstanding between 1994 and 2004, for instance – can be attributed to a handful of large states and generally associated with new transportation funding streams.
- In most states, there are provisions in the State Constitution and/or statute that govern the level of debt and manner in which it can be issued.
- While most states report a need for assistance in developing prudent debt management practices for their transportation programs, there has been limited national research on these debt policy issues, particularly as it relates to transportation program finance as opposed to the general revenue programs of state governments.

Debt Issuance Authority and Capacity

Debt issuance at both the state and local level is governed primarily by a combination of state constitution and statute. At the local level, local statute and governing bodies also serve to control the amount, type, term, and use of debt for transportation purposes.

State-Level Authority to Issue Debt for Transportation Purposes

Nearly 90 percent of states (including Puerto Rico and the District of Columbia) have current authority to issue debt for transportation purposes. Of the handful of states that do not report current authority, the majority have issued debt in the past for specifically authorized purposes. Debt is authorized for a variety of transportation investment purposes, including capital investment in:

- Non-tolled highways and bridges;
- Tolled highways, bridges, and tunnels;
- Rail and transit capital equipment and infrastructure;
- Ports and airport infrastructure;
- Ferries and marine transportation facilities; and

[2] Federal Highway Administration, *Highway Statistics 2005*, Table SB-2.
[3] Federal Highway Administration, *Highway Statistics 2005*, Table LGB-2.

- Buildings and other capital assets.

The authority to issue debt is derived primarily from a combination of state constitution and statute. In addition, some authority is granted through public referenda or actions by a bond commission or financial oversight body within a state.

Types of traditional debt (defined primarily by the source of repayment) generally authorized include the following:

Type of Debt	Primary Repayment Examples
General Obligation	• General revenues of issuing entity (sometimes issued as "double barreled" with first source of repayment a specific revenue source and only secondarily general fund revenues of the issuing entity)
Highway / Transportation Revenue Bonds	• Gasoline and other fuel taxes • Motor vehicle registration and drivers' license fees • Automotive-related sales taxes (e.g., on automobile and automobile parts) • Personal property taxes (e.g., on automobiles) • Other transportation-related fees, fines, and miscellaneous receipts
Toll and Farebox Revenue Bonds	• Toll receipts (e.g., on tolled highways, bridges, and tunnels) • Farebox receipts and ancillary revenue (e.g., on heavy and light rail and bus transit systems)[4]
Sales Tax Revenue Bonds	• General sales taxes dedicated at least in part to transportation purposes such as transit or highway investment
Personal Income Tax Bonds	• Personal income tax collections
Grant Anticipation Notes / Bonds	• Future federal and / or state funding
Bond Anticipation Notes	• Anticipated bond proceeds
Lease Revenue Bonds (incl. Certificates of Participation)	• Revenues from leases of capital assets

Additional forms of borrowing include borrowing from the State Treasurer – often on an interim- or short-term basis – and other short-term borrowing via commercial loans and / or commercial paper.

[4] Farebox revenue bonds are not as common as other forms of debt because fare receipts generally do not cover transit system operating expenses and thus typically are not available for debt repayment. Instead, other non-system revenues (e.g., dedicated sales taxes, general revenues) tend to be the source of repayment for transit system debt.

A wide range of state entities have authority to issue debt for specific purposes. In some states, the state department of transportation (DOT) or state transportation board / commission has explicit authority to issue debt on behalf of the state for transportation purposes. In some states, an independent state-sponsored toll, turnpike, or bridge authority has debt issuance authority, either in addition to or in lieu of the state transportation agency. In other states, debt issuance authority rests solely with the State Treasurer, Bond Commission, or other designated administrative agency of state government.

Local Authority to Issue Debt for Transportation Purposes

Local debt issuance is governed by a combination of state constitution and state and local statute as well as the direct oversight of local governing bodies. According to FHWA's *Highway Statistics*, as of the end of 2003, 100 percent of states reported some level of outstanding debt at the local level for transportation purposes.[5]

Local governments issue debt to finance transportation infrastructure investments for a range of purposes and in a wide variety of manners. Local investment purposes can be categorized into three broad categories:

- To finance local projects directly, including for example local investment in transit or local roads;
- To finance the required cost share for federal and / or state projects; and
- To advance federal and state projects by advance funding the project and being repaid at a later date by the State.

This final category represents an emerging strategy being pursued by local governments to speed delivery of projects in their areas. Montgomery County, Maryland, for example has chosen to issue debt to finance projects that are in the state program but not for some number of years. The locality will issue debt, pay for the project and associated interest on the debt, and be repaid by the State (in some instances, absent the interest portion) when the project would be normally scheduled. By doing so, the locality has the benefit of the project some number of years before they otherwise would at the cost of the interest on the debt.

Synthesis of Debt Issuance Policies, Guidelines, and Affordability Measures

States and localities grapple with a variety of policy issues as the level and complexity of debt issuance increases. The most fundamental question is when is it prudent to issue debt to help pay for infrastructure investment. In answering this question, states and local jurisdictions must balance the costs of financing against the benefits of project acceleration. The primary costs include the obvious interest and issuance costs but also the opportunity costs (i.e., reduction in future financing flexibility and potential displacement of other projects). The benefits can include cost savings in the form of avoided inflation and economies of scale in project delivery; economic, environmental, safety, and social benefits of delivering a project sooner than otherwise feasible; and intergenerational equity benefits by spreading the cost of long-term capital improvements and thus matching costs to users over time.

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[5] Federal Highway Administration, *Highway Statistics 2004,* Table LGB-2 (some debt figures estimated by FHWA).

More specific examples of issues related to the management of debt programs include such questions as:

- When is it appropriate to use debt to finance capital (and operating) expenses?
- What criteria or benchmarks should be set to guide decisions about how much debt to issue and how bond proceeds should be used?
- Should debt limits be set on a comprehensive basis (e.g., across all government programs) or for individual funds or programs (e.g., the Road Fund) or some combination of aggregate and individual limits?
- What institutional constraints exist to the issuance of debt to support transportation investment?

Despite a general lack of research on these policy issues, particularly as it relates specifically to transportation program finance, an increasing number of states and localities have established or are in the process of setting their own policies. These efforts are supported in part by such organizations as the Government Finance Officers Association (GFOA) and other state and local government associations. It is notable that despite recommendations of organizations like GFOA, only a minority of states have written policies that govern their debt issuance practices as it relates specifically to transportation-related debt.

States find themselves searching for guidance on many finance-related policy issues. There is particular interest in information that could support the establishment of guidelines for the levels of total debt and / or debt service as a percentage of overall program expenditures or revenues. A related area for which states are seeking guidance is the level of their federal transportation revenues that are appropriately dedicated to debt repayment (e.g., for Grant Anticipation Revenue Vehicle (GARVEE) or GANs debt). The independent rating agencies have provided some guidance on this topic and some states have established limitations in statute or by policy but the extent of such efforts has been limited to date.

States and localities do apply a range of criteria to evaluate the amount of debt that can be sustained. Common benchmarks include:

- Debt per capita;
- Debt as a percent of personal income;
- Debt as a percent of taxable property;
- Ratio of debt service expenditures to total available revenues;
- Ratio of debt service expenditures to all expenditures; and
- Debt service coverage by pledged revenues (i.e., the ratio of pledged revenues to annual debt service).

While states and local governments often establish and adhere to some combination of the above benchmarks, they often rely most heavily on the credit rating assigned by independent rating agencies and on their ability to maintain (or improve) their underlying ratings as proxies for debt affordability.

State and local government managers point to a number of areas as focus areas for improvement in the debt policy arena. These include:

- A need for more robust and formalized financial planning and debt management policies;
- Need for new staffing and technical training for existing staffs;
- Improved technology to support more sophisticated financial management, forecasting, cash management, and related analyses;
- More thorough understanding of financial risks and potential negative impacts of debt financing; and
- Better communication with and training of state legislative staffs involved in financial oversight.

Debt Issuance Trends

Comprehensive statistics on state and local debt issuance for transportation – spanning state and local issuers and covering all transportation investment purposes – are not readily available. At the local level, the challenge is segregating debt issued for transportation investment from other locally-issued debt since issues are often multi-purpose in nature. At the state level, the situation is a bit more straightforward but there are still some reporting and coding issues, largely due to the number of entities potentially involved in debt issuance (e.g., state departments of transportation, independent toll, airport, and port authorities, state finance agencies, independent transit agencies, and so forth). The information provided in this section relies primarily on data that is available in FHWA's *Highway Statistics* series. While *Highway Statistics* includes information on local as well as state debt issuance, the local information is less complete because it depends on the quality of data collected and provided by individual states on their local jurisdictions' activities and is only collected on a comprehensive basis every other year. The focus here, therefore, will be primarily on state-level statistics for which there is greater confidence.

Types of Debt and Repayment Sources

As noted earlier, debt is often defined by the source of repayment for that debt. General obligation debt, for instance, is repaid by the general revenues of the issuing jurisdiction while revenue debt is backed by a specific revenue stream (e.g., tolls for toll revenue bonds, gas tax receipts for fuel-tax revenue bonds, and so forth). In roughly descending order of prevalence, the following are common repayment sources for transportation-related debt:

- State motor fuel tax revenues;
- Vehicle registration and other motor vehicle / driver's license fee revenues;
- Federal fuel tax revenues via Highway Trust Fund apportionments;
- General revenues;

- Transportation-relates sales and use tax revenues (e.g., from rental car fees, taxes on the sale of automobiles and automobile parts); and
- Toll revenues.

Other repayment sources include: airport revenues, tobacco settlement receipts, investment income, parking revenue, and a variety of fees and fines.

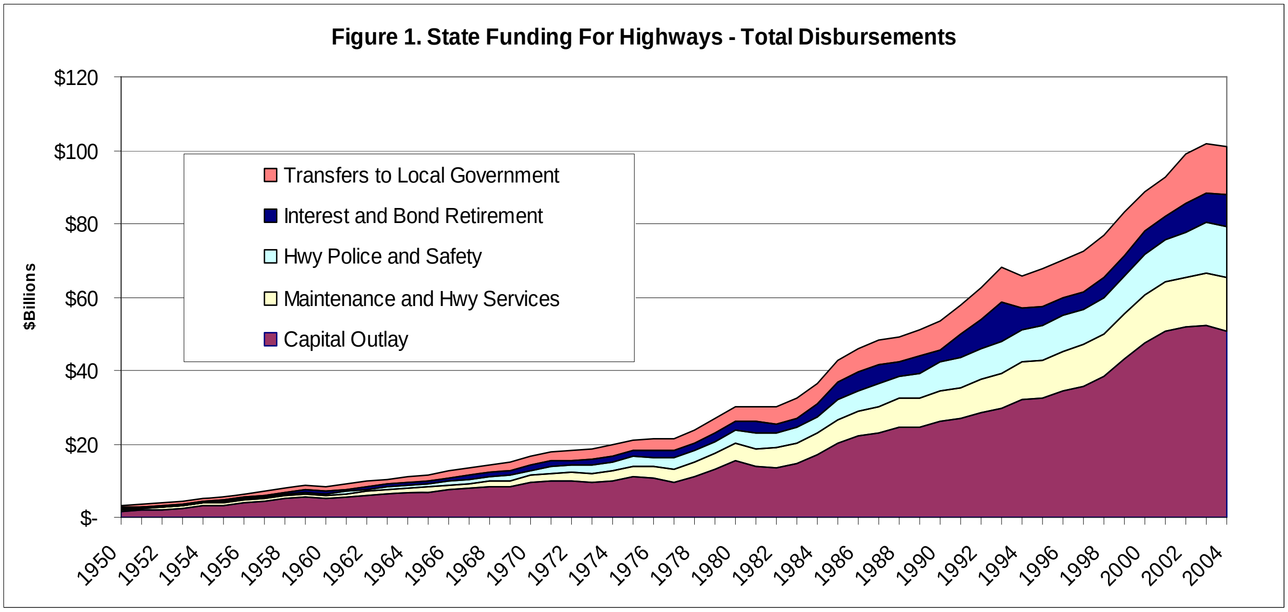
Debt Levels

The vast majority of states have some amount of debt outstanding for transportation purposes. According to data available from FHWA's *Highway Statistics*, transportation-related debt outstanding ranged from $13 million (Vermont) to $12.1 billion (New Jersey) as of the end of 2005. Twenty-five states reported debt outstanding over $1 billion, inclusive of debt for state toll authorities.[6] As of the end of 2004, debt service as a percent of all disbursements for all states equaled 8.2 percent. Only seven states reported debt service obligations in relation to total disbursements in excess of 10 percent. As a percentage of all reported capital outlays (direct pay-as-you-go plus interest and bond retirement), debt service represented an average of 13.6 percent for the 2004 reporting year.[7]

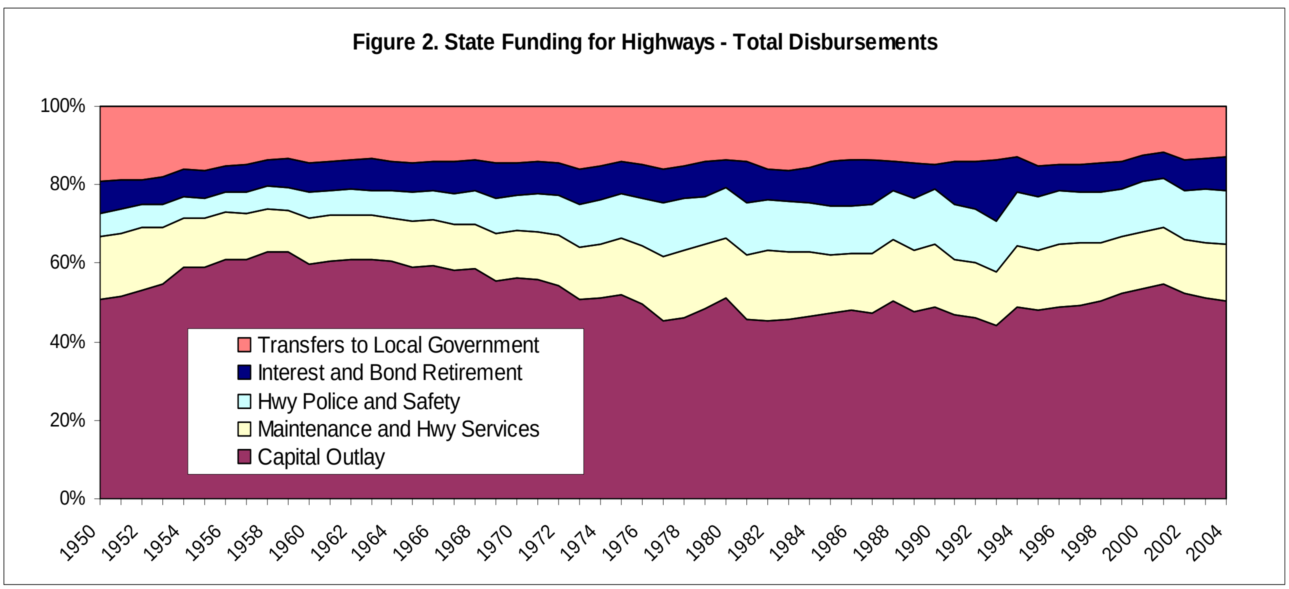
This compares to a report of the National Association of State Budget Officers (NASBO) reporting that 32 states relied on bond proceeds to finance transportation investment in fiscal year 2004 and 34 states in fiscal year 2005. According to the same report, transportation-related bond proceeds increased from $5.2 billion in 2000 to $8.4 billion in 2005. Bond proceeds, as a percent of total state transportation expenditures, ranged from 6.2 percent in 2000 to roughly 8 percent in 2005.[8]

There has been much written recently expressing caution about the overall level of indebtedness among the states. While the total amount of debt undertaken for highways has increased significantly over time – from $37.4 billion outstanding in 1994 to $85.6 billion in 2004[9], for example – over one-half of the additional indebtedness in this period can be attributed to a handful of large states that also have committed additional resources to transportation.[10] Figure 1, below, provides a snapshot of the total annual disbursements by states for highway from 1950 to 2004. Figure 2 shows this data as a percent of total disbursements. As shown, while total debt obligations have increased substantially over time, in aggregate the percentage of available resources applied to debt service has been remarkably stable over the 50-plus year time horizon. Figure 3 focuses on debt service alone and shows the trend line in debt service as a percent of all disbursements as well as debt service as a percent of combined capital outlays (debt service and direct pay-as-you-go capital expenditures). As this figure demonstrates, there has been somewhat greater volatility in more recent years (some incidentally could reflect reporting differences) but still the overall level of debt obligations relative to all financial obligations has remained fairly stable over a long period of time. Exceptions of course can be found in a small number of states.

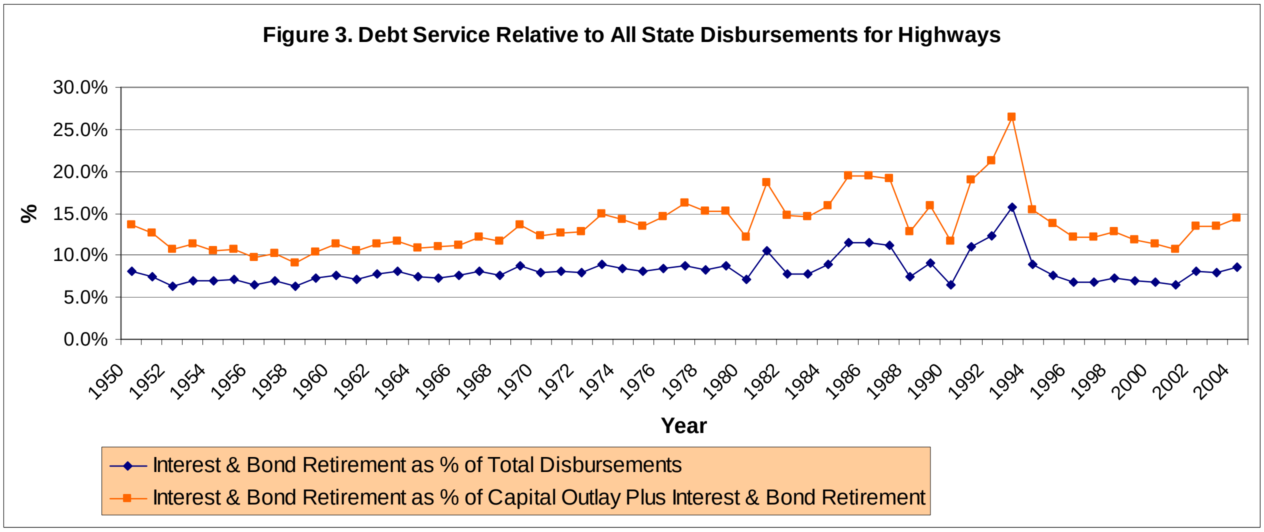
[6] Federal Highway Administration, *Highway Statistics 2005,* Table SB-2.
[7] Federal Highway Administration, *Highway Statistics 2004,* Table SF-2.
[8] National Association of State Budget Officers, *2005 State Expenditure Report*, Washington, DC, Fall 2006.
[9] Federal Highway Administration, *Highway Statistics 1994 and 2004.*
[10] The states are Florida, Massachusetts, New Jersey, New York, and Texas.



Source: FHWA Highway Statistics, Series SB-2.



Source: FHWA Highway Statistics, Series SF-21.



Source: FHWA Highway Statistics, Series SF-21.

Conclusions

Over time, states and local governments have become better versed in the role that traditional debt can play in supporting their transportation investment initiatives. In aggregate, there also has been a substantial increase in both the number of states with debt programs and in the total level of debt. It is important, however, to consider this increase in the context of the overall scale of state programs and, most importantly, available resources. As shown in this paper, when examined in this way, the level of reliance on debt has remained remarkably stable over time, with some individual exceptions.

As states and localities face ever-growing investment demands, it can be anticipated that they will continue to leverage their available resources to the greatest extent possible and that traditional debt obligations will serve as a cornerstone of their transportation investment programs. This will be supported but not supplanted by alternative financing such as federal and state credit programs and private investment.[11] As state and local governments strive to manage their ever more constrained programs they also will need to address a myriad of policy issues and establish prudent debt management practices. This will require additional in-house technical expertise as well as taking advantage of outside technical resources.

[11] Data collection and reporting methods will need to evolve to capture the full range of financial obligations, including not only traditional debt but also the obligations of private parties and alternative financing methods that ultimately accrue to the taxpayers and users of the transportation systems.