

Commission Briefing Paper 5A-13

Evaluation of Innovative Finance Tools as a Transportation Financing Mechanism

Prepared by: Mercator Advisors LLC

Date: January 10, 2007

Introduction

This paper is part of a series of briefing papers 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 briefing paper summarizes governmental "innovative finance" tools that can help leverage or monetize pre-identified revenue streams, and evaluates the contribution they can make in stimulating highway and transit capital investment. The paper describes the following federal policy tools: securitization of federal receivables (GARVEEs and GANs); loan revolving funds (State Infrastructure Banks); and federal credit assistance (TIFIA, RRIF). In addition, this paper briefly surveys some of the more promising policy tools used at the state/local level. A separate paper (1-15) evaluates the potential contribution of federal tax incentives (private activity bonds, tax credit bonds, and investment tax credits).

Background and Key Findings

Innovative financing mechanisms are techniques that can be used to generate upfront capital for transportation investment, but are predicated upon a revenue stream being identified, to pay a return on invested capital. An array of federal, state and local policy tools have been introduced since the early 1990s to help finance surface transportation projects:

- *Grant Management Tools.* For projects that are *internally* funded by governmental agencies on a pay-as-you-go basis, USDOT has developed several important grant management tools providing greater flexibility in meeting requirements for the timing and nature of non-federal match.
- *Securitizing Federal Receivables.* For project sponsors that anticipate receiving a predictable long-term stream of federal grant payments, there are several methods for "securitizing" (borrowing against) those federal receivables, in order to generate upfront proceeds to fund capital outlays. These debt obligations, known generically as GARVEE bonds (for highways) and grant anticipation notes (for transit), allow debt to be issued without necessarily pledging the credit of the issuer itself. The upfront monetization benefit of these techniques needs to be weighed against consuming a portion of future years' receivables to pay debt service. This approach is appropriate for large, long-lived, non-revenue generating assets.
- *Capitalizing Loan Revolving Funds.* A State Infrastructure Bank (SIB) is a lending organization capitalized (funded initially) with federal grants and state matching funds.

Loans from contributed funds can be lent to projects at low interest rates and favorable terms, with repayments being recycled into subsequent rounds of loans. Revolving funds are most suitable for multiple projects that are relatively small and/or homogenous, or higher-risk projects needing a below-market interest rate in order to meet debt service payments from available cash flow. The shorter the repayment term, the more quickly that funds can be “revolved.” The key issue from a state perspective will be identifying the source of funds to capitalize the bank. A SIB funded through issuing bonds will need to apply loan repayments to service its own debt, rather than recycling repayments to fund additional loans.

- *Federal Credit Assistance.* Federal credit in the form of direct loans or loan guarantees is appropriate for larger projects with identified revenue streams where a loan at U.S. Treasury rates would be a cost-effective alternative to borrowing through the capital markets. Federal credit may be particularly valuable in the form of a subordinate loan, since its junior claim on project cash flows can enhance the marketability of the balance of financing, structured as senior lien debt.
- *Non-Federal Mechanisms.* State and local governments have developed their own initiatives to facilitate capital investment. Among the tools employed are long-term asset leases, guarantees of debt service, and assuming responsibility for project operating and maintenance costs.

Introduction

Because of their cost, complexity and risk factors, major surface transportation projects face significant barriers in obtaining funding. Over the last decade or so, the federal government has undertaken several policy initiatives designed to facilitate the financing of such projects, some of which involve private sector participation. Concurrently, at the state level, new programs have been introduced to assist highway and transit project sponsors in accessing capital sources.

The term “innovative finance” has been used by federal policy makers to describe a broad array of policy initiatives designed to enhance the flexibility of Federal-aid funding, facilitate access to the capital markets, and encourage increased private sector participation in project delivery and asset management. Policy tools relating to *innovative procurement* (such as design-build contracting) and *innovative asset management* (outsourcing maintenance, long-term warranties) do not necessarily entail *innovative financing*, since their costs may be funded with traditional grants.

The financing mechanisms summarized below should not be viewed as alternatives to or substitutes for the revenue enhancement options described in other briefing papers.¹ Rather, these financing tools represent ways in which project sponsors can take pre-defined revenue streams and monetize them to generate upfront proceeds for capital outlays. The annual cash flow from the revenue stream provides the source of return to the debt and equity investors.

I. Federal Grant Management Tools

¹ Several of the other briefing papers prepared for the NSTPRSC evaluate the potential of various fuel taxes, general taxes (including property and sales taxes) motor vehicle fees, vehicle miles traveled (VMT) fees, fixed & variable tolls, transit fares, container fees, and developer impact fees and other value capture techniques.

Over the last 10 years, various policies and regulations governing the distribution of Federal-aid reimbursements for highway projects have been modified to broaden the options for meeting matching share requirements and to provide states with more flexibility in managing how federal funds are obligated.² The grant management tools for pay-as-you-go projects relate to the *timing* of federal and state contributions (advance construction, tapering) and the *forms* in which non-federal match may be satisfied (soft match such as toll credits, payment-in-kind, etc.). These provisions do *not* increase the total amount of federal aid available to states, but they can help to accelerate construction of certain projects (which limits exposure to cost escalation) and may enable some states to reallocate funds that otherwise would have been used to provide the non-federal match.

Because the foregoing grant management tools pertain to internally-managed funds, they should be distinguished from the other innovative finance tools described below, which involve various forms of leveraging project cash flows (external financing).

II. Debt Payable from Federal Grants

Bonding generally can be a cost-effective way to finance long-lived projects if the interest cost and other expenses associated with issuing the debt are less than the potential costs associated with completing construction on a pay-as-you-go basis.³ In addition to minimizing the impact of construction cost inflation by freeing project phasing from current revenue constraints, debt financing also accelerates the realization of non-monetary benefits. These include such benefits as travel-time savings due to congestion relief, and enhanced state/local taxes as a result of expedited economic development.

A bond issue backed by federal grants offers a method for issuers to borrow funds for 10-20 years on a “limited recourse” basis – without necessitating a pledge of their full faith and credit or other state and local revenues.

A. Highway Program. The Grant Anticipation Revenue Vehicle (GARVEE) borrowing tool was authorized in 1995 as part of the National Highway System Designation (NHS) Act. GARVEE bonds are debt obligations issued by a state or local entity, the principal and interest on which is repaid primarily with Federal-aid funds. GARVEES technically represent a form of “advance construction” grant reimbursement, where annual principal and interest payments on the financed project (rather than the actual construction cost) are treated as an eligible expense. As of July 2006, at least 15 states plus Puerto Rico and the Virgin Islands had issued GARVEE bonds for approved Federal-aid projects totaling about \$5.7 billion (excluding refunding bonds). An additional 10 states have passed enabling legislation authorizing the issuance of GARVEE bonds in coming months.⁴ In some cases, the GARVEE bonds are secured exclusively by the

² *Innovative Finance Primer*, April 2002. <http://www.fhwa.dot.gov/innovativeFinance/brochure/index.htm>.

³ The cost-effectiveness comparison should be calculated on a present value basis rather than in nominal dollars, to reflect the time value of money.

⁴ *Innovative Finance Quarterly*, Federal Highway Administration, Fall 2006 edition. The additional states that are authorized to issue GARVEEs are, DE, CA, FL, ID, LA, MD, NC, NH, NV, and WV.

stream of pledged federal receivables (KY, ME, NM), while in other states, the GARVEE bonds may additionally be backed by other state revenues (AK, AR, CO).

GARVEE Bond Issuance Activity 1998-2006
(\$ in millions)

State	Year Issued	Amount	State	Year Issued	Amount
Alabama	2002	\$ 200	Montana	2005	\$ 123
Alaska	2003	103	New Mexico	1998, 2001	119
Arkansas	2000, '01, '02	575	North Dakota	2005	51
Arizona	2000, '01, '03, '04	460	Ohio	1998, '99, 2001, '02, '04	439
California	2004	615	Oklahoma	2004, 2005	575
Colorado	2000, '01, '02, '03, '04	1,487	Puerto Rico	2004	136
Georgia	2006	450	Rhode Island	2003	217
Kentucky	2005	140	Virgin Islands	2002	21
Maine	2004	48	TOTAL		\$ 5,759

Sources: www.innovativefinance.org and FHWA.

In addition, some states have pledged future Federal-aid reimbursements from other pay-as-you-go projects to secure debt issued for capital improvements that may or may not themselves be federally eligible. These obligations are backed by an *indirect* grant reimbursement, and are differentiated from direct-aid GARVEES by being termed construction Reimbursement Vehicles (RVEes). Over \$5 billion of RVEes have been issued to date for projects in MA, MI, MS, SC, UT and VA.⁵

B. Transit Program. Transit agencies have used similar debt financing techniques—Grant Anticipation Notes (GANs) and capital leasing—to borrow against future Federal Transit Administration grants. Debt obligations have been backed both by formula grant allocations (Section 5307) and by project-specific contracts (New Starts/Extensions under Section 5309)⁶. According to the FTA, approximately \$3.2 billion of GANs have been issued over the last 10 years by transit agencies in eight states. Because the federal transit grant program is neither as large nor as predictable as the Federal-aid highway program, transit agencies have found it more difficult to issue long-term GANs or capital lease obligations without pledging additional resources to secure debt service.

III. Federally Capitalized Loan Revolving Funds

Loan revolving funds generally can be defined as special accounts initially funded with grants or bond proceeds, in which loans are made to projects and the loan repayments subsequently are relent to a new series of borrowers.⁷ A major attraction of loan revolving funds to states is that they allow them to get more “mileage” out of their annual apportionments: Every loaned dollar

⁵ *Innovative Finance Quarterly*, Federal Highway Administration, Fall 2006.

⁶ http://www.innovativefinance.org/topics/finance_mechanisms/bonding/bonds_gans.asp

⁷ A Loan Revolving Fund is distinct from a Bond Bank, in which the account is funded from bond proceeds, but repayments support debt service rather than a new generation of loans (i.e., no “revolution” of funds).

Transit Grant Anticipation Obligations 1997-2006

(\$ millions)

Issuer/State	Year Issued	Amount	Issuer/State	Year Issued	Amount
New Jersey Transit (NJ)	1997	\$ 139.0	Bay Area Rapid Transit (CA)	2001	\$ 385.0
Port Authority Transit (PA)	1999	70.0	Sound Transit (WA)	2001	200.0
New Jersey Transit (NJ)	1999	160.0	Valley Transit Authority (WA)	2002	82.3
City of Phoenix (AZ)	2000	18.3	New Jersey Transit (NJ)	2002	94.0
New Jersey Transit (NJ) *	2000	284.9	Chicago Transit Authority (IL)	2003	128.8
New Jersey Transit (NJ)	2000	234.0	Chicago Transit Authority (IL)	2003	78.5
New Jersey Transit (NJ)	2000	450.0	Chicago Transit Authority (IL)	2004	250.0
New Jersey Transit (NJ)	2000	493.0	MBTA (MA)	2004	77.8
New Jersey Transit (NJ)	2000	110.0	Alaska Railroad (AK)	2006	87.4
			TOTAL		\$ 3,203.9

Source: Federal Transit Administration

* The NJ Transit \$284.9M 2000 Bonds refinanced its \$139.0M 1997 bonds, which are excluded from the totals.

that is repaid with interest can be recycled into further investment in the transportation system. From a borrower's perspective, revolving funds—especially those capitalized from grants—can offer loans on more favorable terms than conventional borrowing. The interest rate can be as low as zero percent, and the covenants (loan-to-value ratio, debt service coverage, subordination, maturity, etc.) may give the borrower greater flexibility than is available through commercial lenders or the capital markets.

A. State Infrastructure Banks. Although federal rules since ISTEA have permitted states to lend, rather than expend, their apportionments, using federal aid to fund loans was first authorized in a programmatic way through the State Infrastructure Bank (“SIB”) provisions in the NHS Act.⁸ All states and territories and the District of Columbia are authorized under current law to enter into cooperative agreements with the Secretary of Transportation to establish infrastructure revolving funds. These SIBs may be capitalized with up to 10 percent of federal transportation funds in several major program categories, from fiscal year 2005 to 2009. SIBs provide an opportunity to leverage federal and state resources by *lending* rather than granting Federal-aid funds, and can be used to attract non-federal public and private investment. Among the advantages to borrowers are that SIB funds may be loaned on a low-interest basis, and SIB loans can be secured by a subordinate lien on pledged revenues. SIBs also are authorized to provide credit enhancement to projects through offering loan guarantees, reserve funds, and other means.

As of June, 2005, 32 states and Puerto Rico had established SIB programs, with an aggregate amount of 457 loan agreements representing \$5.1 billion in loans, approximately three-quarters of which had been disbursed. Five states (AZ, FL, OH, SC and TX) account for half of the total number of loan agreements and nearly 90 percent of the total amount of loans.⁹ However, this statistic does not accurately reflect the extent of Federal-aid deposited into the loan revolving

⁸ Section 313(b) of the NHS Act authorized states to loan out their apportioned highway funds to public and private sponsors for up to 80% of the cost of any Federal-aid highway project. This provision was codified in section 129 of title 23, U.S.C. The project sponsor must pledge non-federal revenues from a dedicated source of funding, such as tolls, excise or property taxes, motor vehicle fees, and other beneficiary charges. To date, only one state (Texas) has utilized this “section 129 loan” provision.

⁹ FHWA *Innovative Finance Quarterly*, Fall 2005.

accounts. The SIBs in some states, such as Arizona and South Carolina, rely principally on borrowing through the tax-exempt bond market, rather than federal apportionments, to obtain lendable funds. Loan repayments then are used to retire the debt that has been issued, rather than being recycled into a “second round” of project loans. SIBs operating in this fashion are more properly viewed as state financing conduits rather than loan revolving funds.

SIB Loan Activity (as of June 30, 2005)

Source: Federal Highway Administration

State	Number of Agreements	Loan Agreement Amount (\$000)	Disbursements to Date (\$000)	State	Number of Agreements	Loan Agreement Amount (\$000)	Disbursements to Date (\$000)
Alaska	1	\$ 2,737	\$ 2,737	North Dakota	2	3,891	3,891
Arizona	49	564,000	474,000	Ohio	70	221,739	177,379
Arkansas	1	31	31	Oregon	19	34,394	25,052
California	2	1,120	1,120	Pennsylvania	62	39,000	24,000
Colorado	4	4,400	1,900	Puerto Rico	1	15,000	15,000
Delaware	1	6,000	6,000	Rhode Island	1	1,311	1,311
Florida	50	867,000	281,000	South Carolina	8	2,605,000	2,092,000
Indiana	2	5,715	5,715	South Dakota	3	28,776	28,776
Iowa	2	2,879	2,879	Tennessee	1	1,875	1,875
Maine	23	1,635	1,635	Texas	54	277,237	260,358
Michigan	33	22,207	22,207	Utah	1	2,888	2,888
Minnesota	17	102,776	96,447	Vermont	2	1,975	1,300
Missouri	15	92,557	82,770	Virginia	1	18,000	17,985
Nebraska	2	6,792	6,792	Washington	3	2,376	487
New Mexico	4	25,216	17,815	Wisconsin	3	1,813	1,813
New York	10	27,700	27,700	Wyoming	8	77,977	42,441
North Carolina	2	1,713	1,713	TOTAL	457	\$5,067,730	3,726,280
North Dakota	2	3,891	3,891				

IV. Federal Credit Assistance

Federal credit assistance describes direct loans and loan guarantees (and in the case of TIFIA, standby lines of credit) that the federal government can provide under the Federal Credit Reform Act of 1990. The government assumes the default risk associated with extending credit to borrowers. Loans typically are made based on the U.S. Treasury’s cost of borrowing, which in most cases will be substantially less than conventional funding rates. The budgetary treatment of credit instruments is unique among federal programs in that it uses a present value accrual framework for measuring fiscal cost, rather than nominal dollar cash outlays (as with grant programs).

The FY 2007 Federal Budget indicates that as of 2005 there were outstanding over \$1.3 trillion of federal loans and loan guarantees through several dozen programs across the government. Historically, housing, agriculture and education have had the largest federal credit programs; but in recent years two new credit programs have been made available for surface transportation—TIFIA and RRIF.¹⁰

A. TIFIA Program. The TIFIA program, which was enacted in 1998 as part of TEA-21 and expanded in SAFETEA-LU, provides credit assistance to major transportation investments in the form of direct loans, loan guarantees, and lines of credit. TIFIA may cover up to 33 percent of eligible project costs. The TIFIA instruments may be subordinated to other debt obligations, and

¹⁰ Special legislation predating TIFIA and RRIF authorized federal credit instruments for three major transportation projects in California: a \$400 million direct loan for the Alameda Corridor project in Los Angeles (prepaid in 2004) and two \$120 million lines of credit securing two toll roads in Orange County.

the payment schedule may be deferred. The “subsidy premium” (loan loss reserve) is funded through contract authority from the Highway Trust Fund.

The program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital to projects. A review of TIFIA undertaken for a 2002 Report to Congress found that the program also was useful in helping project sponsors consolidate political and financial support for certain projects.¹¹ A total of \$3.2 billion of TIFIA assistance has been committed to 13 projects thus far, generating a total of \$13.2 billion of capital investment. Nearly a third of the borrowed funds have been prepaid in full. A list of the TIFIA-assisted projects is shown below.

Project	Type	Amount	Project	Type	Amount
Central Texas Turnpike (TX)	Toll road	\$ 917	SR 125 (CA)	Toll road	\$ 140
Cooper River Bridge (SC)	Highway	\$ 215*	Staten Island Ferry (NY)	Transit	\$ 159*
Louisiana Route 1	Toll road	\$ 66	Tren Urbano	Transit	\$300*
Miami Intermodal Center (FL)	FDOT projects	\$ 269*	US 183-A Turnpike (TX)	Toll road	\$ 66
Miami Intermodal Center (FL)	Car Rental	\$ 179	Warwick Intermodal Ctr.(RI)	Rail station	\$ 42
Moynihhan Station (NY)	Rail station	\$ 160**	Washington Metro C.I.P (DC)	Transit	\$ 600
Reno Rail Corridor (NV)	Freight Rail	\$ 51*	TOTAL		\$ 3,164

* Project loan fully repaid. ** Project loan not yet funded.

Since the beginning of 2005, USDOT has received nine additional letters of interest for TIFIA assistance totaling in excess of \$2.3 billion, mostly relating to proposed toll road projects.

B. Railroad Rehabilitation and Improvement Financing (RRIF) Program. This USDOT program was enacted in 1998 as part of TEA-21 as a \$3.5 billion program, and was reauthorized and expanded to \$35 billion under SAFETEA-LU in 2005. RRIF provides credit assistance to state and local governments, railroads, government-sponsored authorities and joint ventures that include a railroad partner. The direct loans and loan guarantees may be used to acquire, improve, or rehabilitate intermodal or rail equipment or facilities. RRIF also can be used to refinance debt previously incurred for these purposes and to establish new intermodal or railroad facilities. Unlike TIFIA, which is limited to 33 percent of eligible costs, RRIF can provide loans for up to 100 percent of a railroad project with repayment terms of up to 25 years and interest rates equal to the cost of borrowing to the government.

As of October 2006, RRIF loan agreements had been executed for 15 projects with an aggregate loan amount of approximately \$556 million, as shown below.¹² Under SAFTEA-LU the program is authorized to issue up to \$35 billion in direct loans and loan guarantees, of which \$7 billion is reserved for freight railroads other than Class 1 carriers. RRIF currently does not have an appropriation to cover the risk cost to the government of providing the credit assistance. This credit risk (“subsidy”) cost must be paid by the applicant at the time the loan or loan guarantee is provided.

¹¹ <http://tifia.fhwa.dot.gov/>.

¹² <http://www.fra.dot.gov/us/content/268>.

Borrower	Year	Amount	Borrower	Year	Amount
Iowa Northern Railroad	2006	\$25.5	Stillwater Central Railroad	2004	\$4.6
Wheeling & Lake Erie Railway	2006	\$14.0	Wheeling & Lake Erie Railway	2004	\$25.0
Iowa Interstate Railroad	2006	\$9.4	Arkansas & Missouri Railroad	2003	\$11.0
Great Smoky Mountains Railroad	2005	\$7.5	Nashville and Western Railroad	2003	\$2.3
Riverport Railroad	2005	\$5.5	Dakota, Minnesota & Eastern RR	2003	\$233.0
Montreal, Maine & Atlantic Rwy.	2005	\$34.0	Amtrak	2002	\$100.0
Tex-Mex Railroad	2005	\$50.0	Mount Hood Railroad	2002	\$2.1
Iowa Interstate Railroad	2005	\$32.7	TOTAL		\$556.6

V. Non-Federal Mechanisms

In addition to the federal policy tools described above, state and local governments have developed their own policy initiatives to stimulate capital investment in surface transportation facilities. Brief descriptions of some of the more innovative tools and approaches follow:

A. Availability Payments & Shadow Tolls. The majority of transportation projects are incapable of generating sufficient revenues from user charges to cover their capital and operating costs. This is not to say that such highway or transit projects are not economically justified: They may generate substantial “spillover” benefits in terms of alleviating congestion, reducing pollution, stimulating economic growth, and providing accessibility to those members of society unable to drive.

Although such projects are reliant on public funding, it nonetheless may be possible to shift some of the business risks associated with developing and operating transportation assets away from the governmental project sponsor and onto the private sector. These techniques, used extensively in the United Kingdom and several other European countries, draw upon the concept of “availability payments” and “shadow tolls.” An availability payment is a pre-determined annual transfer of general government revenues to cover operating, maintenance and capital costs, where the payment is conditioned on certain agreed-upon asset performance standards being met (pavement quality, lane-miles opened, etc.) A shadow toll is also government-funded and performance-based, but is a variable payment tied to the level of traffic using the facility.

In Texas, recently-enacted legislation authorizes the state to enter into similar agreements known as Pass-Through Financings, where the state will reimburse county and other local project sponsors based in part on the number of vehicles that use the new facility.¹³ Florida is selecting a private concessionaire to design, finance, build, operate, and maintain a \$1 billion tunnel to the Port of Miami, where the concessionaire may be compensated through annual “availability payments” based on various asset performance standards. Miami-Dade County has contributed \$100 million of general obligation bond proceeds to initial studies for the project and is expected to be responsible for a portion of the annual payments over a 35- to 40-year period.¹⁴

¹³ As of October 2006, TexDOT had completed 11 pass-through finance agreements with cities and counties. Additional information: http://www.dot.state.tx.us/publications/tta/pass_through.pdf.

¹⁴ www.portofmiamitunnel.com.

Availability payments are seen as a way to shift significant elements of project life-cycle and performance risk from the governmental owner of the facility to the private sector operator.

B. Strategic Public Co-Investment. State DOTs and transit authorities can facilitate the creation of revenue-generating assets by assuming responsibility for a portion of the capital costs or operating expenses that cannot be supported by projected revenues. Based on experience to date, few start-up infrastructure projects are likely to be completely self-supporting. Nonetheless, the use of tolls and other user fees can be beneficial from both a financial and operational perspective even in situations where public investment or subsidy is required.

Public sector financial support can be beneficial at various stages of a project life cycle. Some states, for example, have established special funds to help project developers (public and private) in the developmental phase of a project offset the costs of environmental analyses and preliminary design.¹⁵ Others have facilitated construction financing efforts by securing specific federal appropriations, contributing right-of-way, building key feeder roads, or providing commitments to cover certain costs or project risks. For example, \$130 million of public funds are being used to construct a key two-mile link for the privately developed and tolled \$635 million South Bay Expressway (SR 125). To help overcome concerns about funding ongoing operations and maintenance costs for start-up toll roads, the State of California agreed to own and maintain two new toll facilities in Orange County upon completion. These are just some of the ways that state and local governments are implementing their own innovative finance initiatives to advance capital projects.

C. Long-Term Leases of Existing Assets. Public transportation authorities have leveraged their real property assets to generate incremental cash or in-kind goods and services for many years. Several highway agencies, for example, have granted access to their right-of-way to private telecommunications companies in exchange for donations of communications technology (principally capacity on fiber optic lines) or lease payments. Some transit authorities have had success entering into joint development arrangements with private developers that leverage air rights and publicly owned property around rail stations.

More recently, public entities have entered long-term leasing of existing toll facilities in order to generate upfront cash payments and/or a share of future project revenue. For example, in 2005 a private concession company paid the City of Chicago \$1.83 billion for the right to operate the Chicago Skyway for 99 years, and in 2006, the same consortium submitted the winning bid of \$3.85 billion for a 75-year lease of the Indiana Toll Road.

There is considerable debate among transportation policy makers as to the “value proposition” for long-term operating concessions. Private operators may have greater incentive than governmental agencies to introduce new technologies, implement operating efficiencies, and control costs in order to enhance the profitability of their franchise. But it also appears that private owners have a much greater willingness to raise tolls (i.e., use “market pricing”) and are less sensitive to public criticisms than governmental entities.

With the increasing frequency of privatization proposals, public sponsors will need to develop a framework for evaluating these and other policy questions. The upfront financial proceeds from

¹⁵ Virginia Transportation Partnership Opportunity Fund, Texas Toll Equity grants and loans, Florida Toll Facilities Revolving Trust Fund.

an asset monetization need to be weighed against other local public policy considerations to determine whether an asset lease is advisable.

Conclusion

Leveraging tools such as GARVEE bonds, State Infrastructure Banks, and federal credit programs can play an important role in assisting state and local project sponsors in generating upfront cash to advance capital projects. For example, for highway-related projects, the aggregate funding commitments under these programs over the last decade have totaled about \$13 billion, and the volume of associated capital investment is estimated to be upwards of \$30 billion.

Volume of Highway “Innovative Finance” Activity
(since 1995, \$ in millions)

GARVEE Bonds	\$ 5,759
State Infrastructure Banks	5,068
TIFIA / Other Credit Assistance	2,543
TOTAL	\$ 13,370

Yet as significant as this figure is, the \$13 billion of innovative financing needs to be considered in the context of total investment activity over the same period. The aggregate amount of highway capital investment from federal, state and local sources during 1995-2005 is estimated at \$661 billion.¹⁶ Even compared to that subset of highway capital spending that was debt-financed (\$148 billion), innovative finance still constituted under 10 percent of the total borrowing volume. This suggests that, while innovative finance may play an increasingly conspicuous role in coming years, it at best will be an ancillary approach to more traditional financing techniques and tax-supported funding strategies. And as noted earlier, innovative financing mechanisms are not substitutes for underlying revenue streams, but rather draw upon them to generate a return to investors.

This conclusion is also reflected in a recent study sponsored by the U.S. Chamber of Commerce, which sought to analyze how best to defray the under-investment gap in surface transportation infrastructure¹⁷. The report found an average annual gap to “maintain” the nation’s highway and transit systems of over \$50 billion and an average annual gap to “improve” (by making cost-effective investments) of over \$100 billion. It also concluded that innovative finance tools and public-private partnerships could play an important role in advancing certain user-backed projects. But the combined contribution of innovative finance tools and tax incentives was likely to have only a marginal impact in terms of directly closing the surface transportation investment gap. More fundamental revenue-raising measures would be required to dramatically boost capital investment levels.

¹⁶ Based on data in the *Highway Statistics* series, FHWA.

¹⁷ *Future Highway and Public Transportation Finance Study*, National Chamber Foundation of the U.S. Chamber of Commerce, August, 2005.