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Transportation Infrastructure Finance and Innovation Act (TIFIA) Policy Brief

by Robert W. Poole, Jr.

INTRODUCTION: WHAT IS TIFIA?

In 1998 Congress created the Transportation Infrastructure Finance and Innovation Act (TIFIA) to provide credit assistance (loans and/or loan guarantees) for surface transportation projects. These can be highway, transit, intercity passenger facilities, freight rail and freight transfer facilities. The intent of the program is to provide "gap" funding to worthwhile transportation infrastructure projects that have dedicated funding sources (such as tolls), but which might not be fully financeable without assistance in closing a funding gap. Therefore, TIFIA provides subordinated loans which can account for no more than 33% of a project's funding. The senior debt (e.g., toll revenue bonds) must attain an investment-grade rating in order for the project to obtain TIFIA support. A growing number of public-private partnership (PPP) projects have made use of TIFIA loans in recent years.

Why should fiscal conservatives support a federal loan program for infrastructure? Because states need to make productive improvements in their transportation systems at a time of limited resources, and tolling and PPPs are powerful tools to help them do that. The federal government looks set to limit federal transportation spending to the level of revenue coming into the Highway Trust Fund—which means federal highway and transit grant funding is likely to be lower during the next six years than during the previous six years. Therefore, Congress should give states and localities increased tools for self-help funding. This will help them to transition away from their current heavy dependence on federal grant assistance, consistent with narrowing the federal role.[1] TIFIA is a critically important tool for this purpose.

HOW TIFIA LEVERAGES LIMITED FEDERAL DOLLARS

The federal government has entered a new era of fiscal constraints in which traditional grant-based funding will no longer be able to play as large a role. That sort of constraint especially affects federal programs dependent on general revenues. But funding limitations are also appearing in the programs supported by the Highway Trust Fund, which depends not on general revenues but on transportation user taxes, primarily motor fuel taxes. Fuel tax revenues are no longer

growing at historical rates, thanks to factors such as increased vehicle fuel efficiency (meaning fewer gallons are needed to go the same number of miles), the higher price of fuel (meaning individuals and companies economize on the amount of driving), and energy and environmental policy changes (which lead to federal support for alternative fuels and means of propulsion). With no increase in the federal gasoline or diesel tax, and no further general fund bailouts of the Highway Trust Fund, federal highway and transit spending this decade is likely to be significantly lower than in the previous decade.

Traditionally, Federal Highway Administration (FHWA) highway grant funds supported 80% of a highway project's cost (90% for Interstate highways). And Federal Transit Administration (FTA) capital grants under its New Starts program typically fund up to 50% of eligible transit project costs. With both highway and transit funds becoming more limited, it makes sense for Congress to begin shifting more toward loans rather than grants for such capital investments. That is what TIFIA is all about.

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TIFIA is considered an important tool for project finance. The term "finance" is used here in its technical sense and does not mean "funding." When you finance a large capital expenditure such as a car or a house, you typically make a down payment and arrange for one or more loans to pay the balance of the initial cost. As long as you have the resources to make the required payments over the life of the loan(s), financing such a large purchase makes sense. It is a long-lived asset, and you are paying for it during the time period in which you enjoy its benefits. Large-scale transportation infrastructure projects are likewise long-lived assets, whose benefits extend over their entire useful lives.

Toll roads have nearly always been financed in this manner, but beginning with the Interstate highway program in 1956 (and with most state highway programs beginning 35 or 40 years earlier), those major capital investments have been made on a cash basis, using annual fuel tax revenues. One major drawback of this approach is that a project needed today (such as a new 50-mile highway) might have to be built in many small increments over perhaps a 20- or 25-year period, as cash becomes available. If that highway is needed today, then financing it enables the capital to be raised up front, so the whole project can be built within a few years, with users paying for it over the many decades of its useful life. This is especially important for large bridges, which cannot be built in increments over several decades.

By creating TIFIA to support greater use of project finance, Congress intended to encourage states to shift some of their transportation infrastructure capital investment from a cash basis to a project-finance basis. Although the program got off to a slow start, in recent years the demand for TIFIA loans has vastly exceeded the supply.

In the highway sector, most TIFIA support has been for toll projects, many of them done as long-term public-private partnerships (PPPs). In such a project, the private sector developer/operator may provide a "down payment" of equity, of perhaps 20% of the project cost. Senior debt, in the form of investment-grade toll revenue bonds, might cover 30% to 40%. With a TIFIA loan taking care of another 25% to 33%, conventional state/federal highway funds would cover the remaining 10% to 20%. Transit projects would rely, typically, on a dedicated revenue stream such as a transportation sales tax to support both senior debt and the TIFIA loan, in addition to FTA grant funds.

In both cases, several factors serve to weed out poorly justified projects. One key hurdle is the requirement to structure the financial package so that the senior debt can attain an investment-grade rating. Another is the requirement for a dedicated revenue stream (which is generally a precondition for the investment-grade rating).

Now let's compare traditional federal grant funding with the TIFIA-assisted project-finance model. The federal Office of Management & Budget (OMB) has the task of "scoring" all federal expenditures. TIFIA loans are currently scored at about 10% of the amount of the loan. That percentage is the sum of two fac-

tors: the credit risk subsidy (an estimate of expected losses from loan defaults) and any interest rate subsidy (an estimate of the cost of lending at rates below the Treasury's cost of borrowing). The TIFIA average score represents just credit risk, since loans are made at comparable-term Treasury rates.

With this information we can compare a TIFIA-assisted project using the project-finance model with a typical grant-funded project. To keep things simple, let's assume a $1 billion express lanes project for an urban freeway that is part of the Interstate system. If funded by FHWA Interstate grant money, the federal expenditure for a 90% Interstate grant would be $900 million. The same project financed with toll revenue bonds (as senior debt), sponsor equity, some state highway funds, and a TIFIA loan for 33% of the project total would cost the federal budget just $33 million (which is 10% of the $330 million TIFIA loan amount). That is what is meant by leverage: $33 million versus $900 million to bring about a $1 billion project.

To be sure, that tremendous leveraging would not be quite as impressive if federal (rather than state) highway or transit funds were used for 10% or 20% of the project budget. Nevertheless, the result would be the same in principle: making limited federal dollars go many times further in terms of funding needed projects. This is the kind of "doing more with less" that fiscal conservatives should embrace. With no likelihood of increasing federal fuel taxes—but a large need for increased transportation infrastructure investment—Congress can enable states to get a lot more bang for the limited federal bucks.

RECENT TIFIA EXAMPLES

During the recent credit markets crisis (2009–2010), four transportation megaprojects were financed with assistance from the TIFIA programs. All four involve adding express toll lanes to highly congested urban Interstates: two in Texas, one in Florida and one in Virginia. The total cost of these four projects is $8.4 billion.

The first project is the Capital Beltway HOT Lanes project in northern Virginia. Under a long-term PPP concession agreement, the team of Fluor and Transurban are adding two value-priced express lanes in each direction on the I-495 Beltway for a distance of 14 miles. This $2 billion project was financed in June 2008. The second project is adding three reversible express toll lanes to the median of I-595, the major east-west expressway in suburban Broward County near Fort Lauderdale. In this case, the 35-year concession to finance, build, operate and maintain the completely reconstructed expressway is held by a team led by ACS Infrastructure Development. This $1.6 billion project was financed in March 2009. The other two projects are each adding priced managed lanes to congested freeways in the Dallas/Ft. Worth metro area. The winning bidder for both the LBJ (I-635) and North Tarrant Express (I-820 and SR 121) is led by Cintra and Meridiam. The $2.1 billion NTE project was financed in December 2009 and the $2.8 billion LBJ project reached financial close in June 2010.

The table below provides details on the composition of the project financing for each of these megaprojects.

Composition of the Project Financing

Source of funds ($M)	Beltway, VA	I-595, Florida	NTE, Ft. Worth	LBJ, Dallas
Private equity	$348.7	$273.0	$428.8	$664.8
State highway funds	$408.9	*	$570.0	$495.9
Toll revenue bonds	$589.0	0	$400.0	$615.0
Bank loans	0	$780.0	0	0
TIFIA loan	$588.9	$603.0	$702.4	$980.0
Interest income	$47.6	0	$6.7	$48.5
Total	$1,983.1	$1,656.0	$2,107.9	$2,804.2

*State highway funds will be provided as availability payments during the 35-year life of the concession, to pay the return on invested debt and equity capital, rather than as an up-front grant.

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THE EUROPEAN UNION'S COMPARABLE PROGRAM

Studies increasingly compare U.S. infrastructure investment with the major efforts under way on highways and inter-city passenger rail in China, but that comparison is misleading. China is a developing country, which until a decade or two ago, had a relatively primitive infrastructure. Its very rapid economic growth necessitates major upgrades to its transportation infrastructure.

A far better comparison can be made with Europe, most of whose countries have an advanced and developed infrastructure, like the United States. The European Investment Bank was created in 1958 to assist with project financing for major infrastructure projects in a number of areas, including transportation. The planned Trans-European Network program has been estimated as requiring €500 billion during this decade, for transportation projects linking European countries. Increasingly in recent years, European Union governments "have sought to increase private sector participation in the financing and implementation of infrastructure projects . . . notably through project finance."[2]

In September 2010 the president of the European Commission announced the Europe 2020 Project Bond Initiative, and details were set forth in a February 2011 consultation paper. The idea is to create something much like the TIFIA program—subordinated loans to provide gap funding for large infrastructure projects that make use of project finance. The consultation paper points out that such projects (especially PPP projects in which the private sector accepts significant risks) have been much harder to finance since the credit market crunch. That is because the bond insurance industry that formerly enhanced the credit of such projects essentially disappeared due to the credit markets crisis. These so-called "monoline" insurers went bankrupt in both Europe and the United States. Hence, the European Commission envisions its Project Bond Initiative as "a catalyst for the re-establishment of capital markets as a significant source of financing" for infrastructure projects. And the consultation paper stresses that "To ensure that the senior debt is and remains investment-grade at a level attractive to the investors in most scenarios, a guarantee amounting to a maximum of 20% of the total bond funding of the individual project would be required."

Thus, we can see that the European Union is moving to create a program comparable to TIFIA to meet essentially the same need that exists in this country.

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TIFIA PROBLEMS THAT NEED ADDRESSING

The number one problem with TIFIA in 2011 is that demand for its loans vastly exceeds the very modest amounts of funding Congress has made available—currently just $122 million in annual budget authority. In FY 2010, the U.S. DOT received 39 pre-application letters of interest, but offered to provide support for only four projects. Moreover, in two cases where Congress allowed DOT to use supplemental funds for TIFIA, DOT has failed to take full advantage. The American Recovery and Reinvestment Act (ARRA) allowed DOT to use up to $250 million of its total budget for additional TIFIA loans, but DOT used only $60 million of that. Likewise, when Congress permitted up to $150 million of the TIGER II money to be used for TIFIA loans, DOT used only $20 million for that purpose.

In March 2011, DOT received letters of interest from 34 potential TIFIA applicants, for projects totaling $48.2 billion. The total of their potential TIFIA loan requests is about $14 billion, which would require $1.4 billion in budget authority, based on current scoring. That is more than 10 times the $122 million currently available. Recent congressional testimony by Geoffrey Yarema, who heads the Infrastructure Practice Group at the law firm Nossaman LLP, included a list of potential TIFIA highway projects that are likely applicants for TIFIA loans over the next three years.[3] The total of those estimated project costs is in excess of $65 billion. Since about $15.5 billion of those projects are included in the March 2011 list, the net additional three-year total of projects is $49–$50 billion, or about $16.5 billion per year. If all received TIFIA loans, that would be $5.5 billion in annual loans, requiring budget authority (using the 10% scoring factor) of $550 million per year. And that is just for highway projects.

A second problem is that the current Administration added two new factors to the set of criteria mandated by the legislation that created TIFIA: "livability" and "sustainability." In addition to lacking statutory authority, those criteria were added without a formal rule-making procedure during which comments from public and private experts in project finance would have been solicited. The addition of those criteria, combined with the lack of any toll-funded projects being selected by DOT in 2010, has created concern among state DOTs and the private sector that precisely the kinds of user-fee-supported projects for which TIFIA was created are being given short shrift.

TIFIA has proven successful in helping states fund revenue-supported projects. It is a powerful tool to assist in the financing of large-scale PPP projects.

A third problem is that the current Administration has seemed reluctant to encourage full utilization of TIFIA. In addition to not using all the funding provided by Congress for TIFIA under ARRA and TIGER II, DOT has not attempted to make its limited TIFIA budget authority go further by allowing potential borrowers to pay the credit subsidy (the 10% of the amount of the loan) themselves. Projects that were willing to do that could potentially go to the head of the line among applicants, since their impact on the federal budget would be zero. The proposed new EU Project Bond Initiative would charge borrowers a risk premium up front in just that manner.

NEEDED TIFIA PROGRAM CHANGES

Based on the discussion above, the most important change Congress can make is to increase the annual TIFIA budget authority to at least $500 million for each year of the reauthorization period. A larger sum might make it possible to support all project loan requests that meet the statutory criteria, but this nearly five-fold increase from the current $122 million would go a long way toward meeting the demand.

Second, Congress should remove the non-statutory criteria of "livability" and "sustainability" and remind DOT that it must select projects based solely on the criteria that Congress sets forth in statutory language. Congress could also make the existing criteria of national significance and creditworthiness the primary evaluation factors, letting others (such as environmental protection) be treated simply as pass/fail criteria.

In the event that the number of qualified project applicants exceeds whatever amount of budget authority Congress agrees to provide, Congress could direct DOT to give preference (or bonus points) to projects meeting the following additional criteria:

- Agreeing to pay the subsidy cost of the loan, thereby scoring that loan at zero;
- Supporting its primary and secondary debt service with user-fee revenue;
- Including private sector equity for at least 10% of the project budget.

CURRENT TIFIA FEATURES THAT SHOULD NOT BE CHANGED

One of the strengths of the TIFIA program is that it provides several hurdles that an applicant must surmount in order to qualify for a loan. These provi-

sions are intended to weed out relatively poorly justified projects, such as "bridges to nowhere." Whereas federal grant funds can be seen as "free federal money" even though they do come with costly strings attached, a TIFIA loan can only be provided to projects with (1) investment-grade senior debt, and (2) a dedicated revenue stream. Those are core features of the program that should not be changed.

A number of organizations are lobbying to increase the percentage of a project's cost that TIFIA can support from the current maximum of 33% to 50% or even 75%. That would be a mistake. It would fundamentally change TIFIA from providing "gap" funding to becoming the primary source of a project's budget. Even with the two hurdles discussed in the previous paragraph, expanding TIFIA's involvement in individual projects would likely increase the risk of its loan portfolio. That would lead to an increase in scoring, and would reduce the number of projects that a given annual TIFIA budget could support. (If TIFIA loans were scored at 20% of face amount rather than 10%, the proposed $500 million annual budget authority could support only half as much in the way of projects.)

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TIFIA VERSUS A NATIONAL INFRASTRUCTURE BANK

For several years the Administration and various members of Congress have proposed some form of new entity to be called an "infrastructure bank." Most of these proposals, including the latest one from the Administration, would make grants as well as loans, therefore not meeting the normal definition of a "bank." The Kerry/Hutchison proposal for an American Infrastructure Financing Authority (AIFA) would actually operate as a bank, providing only loans and loan guarantees for up to 50% of total project cost. Like TIFIA, it would require a project's senior debt to be investment-grade in order to qualify for a subordinated AIFA loan. And whereas TIFIA is limited to surface transportation infrastructure, the AIFA would offer loans for transportation, water, energy and communications infrastructure.

At this juncture, TIFIA is a proven program that could play a more significant role if revised in accordance with the recommendations discussed above. The proposed AIFA is an improvement over most previous infrastructure bank proposals, since it incorporates many of the key concepts that have made TIFIA successful. But unless Congress wants to significantly expand the federal government's role in financing non-transportation infrastructure, it would be wiser to simply improve TIFIA, leaving the focus on transportation.

CONCLUSION

The federal government has entered an era of fiscal retrenchment, in which the federal role in many areas must be rethought. In surface transportation, less federal grant funding will be available. That funding must be better targeted to economically meaningful improvements, and states must be given improved tools for local self-help funding. TIFIA has proven successful in helping states fund revenue-supported projects that must pass several tests of feasibility. It is a powerful tool to assist in the financing of large-scale PPP projects. And because its budgetary impact is miniscule—about 3% of the total cost of a large-scale program—TIFIA is one of the very few projects that Congress should expand.

ENDNOTES

1. See Robert W. Poole, Jr. and Adrian T. Moore, *Restoring Trust in the Highway Trust Fund*, Policy Study No. 386, (Los Angeles: Reason Foundation, August 2010). (http://reason.org/studies/show/highway-trust-fund-reform)

2. European Commission, "Stakeholder Consultation Paper on the Europe 2020 Project Bond Initiative," February 28, 2011.

3. "Improving and Reforming Our Nation's Surface Transportation Programs, Central Florida Field Hearing," Testimony of Geoffrey S. Yarema before the U.S. House of Representatives Committee on Transportation and Infrastructure, March 14, 2011.

RELATED REASON STUDIES

Leonard Gilroy and Amy Pelletier, *HOT Lanes: Frequently Asked Questions*, Reason Foundation, March, 2007 http://reason.org/news/show/hot-lanes-frequently-asked-que

Robert Poole, *Reducing Congestion in Atlanta: A Bold New Approach to Increasing Mobility*, Reason Foundation, November, 2006, http://reason.org/news/show/reducing-congestion-in-atlanta

Robert Poole and Kevin Soucie, *Adding FAST Lanes to Milwaukee's Freeways: Congestion Relief, Improved Transit, and Help with Funding Reconstruction*, February, 2006, http://reason.org/news/show/adding-fast-lanes-to-milwaukee

Robert Poole and Peter Samuel, *Easing California's Transportation Crisis with Tolls and Public-Private Partnerships*, January, 2005, http://reason.org/news/show/easing-californias-transportat

Robert Poole and C. Kenneth Orski, *HOT Networks: A New Plan for Congestion Relief and Better Transit*, February, 2003, http://reason.org/news/show/hot-networks

ABOUT THE AUTHOR

Robert W. Poole, Jr. is the director of transportation policy and Searle Freedom Trust Transportation Fellow at Reason Foundation, the free market think tank he founded. Poole, an MIT-trained engineer, has advised the previous four presidential administrations on transportation and policy issues.

In the field of surface transportation, Poole has advised the Federal Highway Administration, the Federal Transit Administration, the White House Office of Policy Development, National Economic Council, Government Accountability Office and state DOTs in numerous states.

Poole's 1988 policy paper proposing privately financed toll lanes to relieve congestion directly inspired California's landmark private tollway law (AB 680), which authorized four pilot toll projects including the successful 91 Express Lanes in Orange County. More than 20 other states and the federal government have since enacted similar public-private partnership legislation. In 1993, Poole oversaw a study that coined the term HOT (high-occupancy toll) Lanes, a term which has become widely accepted since.

California Gov. Pete Wilson appointed Poole to the California's Commission on Transportation Investment and he also served on the Caltrans Privatization Advisory Steering Committee, where he helped oversee the implementation of AB 680. In 2008 he was appointed by Texas Gov. Rick Perry to that state's Legislative Study Committee on Private Participation in Toll Projects. He is a member of the Transportation Research Board's Congestion Pricing Committee and Managed Lanes Committee and is on the board of the Public Private Partnerships division of the American Road & Transportation Builders Association. He edits the Reason Foundation e-newsletter *Surface Transportation Innovations* and writes a monthly column for the newsletter *Public Works Financing*.

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