INTRODUCTION

Let me start at the beginning of all places and talk about the title of this paper: "Alternative Methods for Transportation Funding." This same title has been used by me and others any number of times with the last word changed depending on the audience. It may well be the most popular title in public finance and the reason for that reflects a basic reality: there are simply greater needs than there are resources available to meet them, and the search for alternative revenues to alter this basic fact is never ending. This continuing search for alternatives may be good news for investment bankers, but it certainly isn't good news for transportation officials.

I would like to deliver four basic messages, each of which contains some element of better news, I hope, as we all search for alternative sources of funding. These messages are:

1. There is a heightened awareness at the present of the importance of financing transportation improvements to strengthen the country's basic economic health and competitiveness.

2. This awareness has been reflected in several respects in the new transportation policy released by the Administration as the proposed Surface Transportation Assistance Act of 1991.

3. Efforts to expand the base of resources available for transportation financing and to use them more effectively through new bond financing programs continue across the country. I will discuss several of interest.

4. Lastly, I want to describe the significance of what the State of Indiana has done over the last several years in meeting its transportation needs, and the basics of examining any alternative financing method you may have under consideration.

IMPORTANCE OF TRANSPORTATION FINANCING

There is growing attention to the importance of addressing what some are terming America's "Third Deficit." The economic research of Professor Alan Aschauer and others provides evidence that as importantly as the budget deficit and the trade deficit, the nation's deficit of infrastructure investment is affecting productivity and economic competitiveness. Specifically, Aschauer contends that more than half of the decline in the nation's productivity growth over the past two decades can be explained by lower public infrastructure spending.
His research points to the dramatic decline in public infrastructure investment over the last two decades. Non-military public investment as a fraction of GNP was only 65 percent of its average level during the preceding two decades falling, from 3.7 percent to 2.4 percent. Aschauer contends that if investment in infrastructure had been maintained, U.S. productivity growth could have been up to 50 percent higher — 2.1 percent per year rather than the actual rate of 1.4 percent. His work suggests a direct link to private sector profitability from public sector infrastructure investment. Maintaining infrastructure investment levels could have raised the levels of profit on nonfinancial corporate capital from its average of 7.9 percent to 9.6 percent.

CHANGES AT THE FEDERAL LEVEL

The Administration's proposals for the Surface Transportation Assistance Act of 1991 acknowledge the significance of infrastructure investment. Rather than describe the details of the proposal I want to focus on a few aspects of the program that are of particular interest from a financing perspective:

1. The core network of roads on which Federal assistance will focus is a 150,000 mile network, of which 43,000 miles represents the current interstate system.
2. For this core network and for bridges the Federal matching share will be 75 percent, increasing the share that must be found by states and localities for many projects.
3. Perhaps of greatest import for financing programs, the proposal will remove the restrictions on the use of tolls for Federally-assisted highways. In essence, the bill will extend the Department's Toll Facilities Pilot Program to all roads. Under the pilot program, toll roads in nine states have been authorized to impose tolls on Federally assisted highways. The Federal share for the projects may be as high as 35 percent.
4. The proposal encourages wider private participation in the construction and management of toll facilities. In particular it will allow for design, finance and construction of toll facilities by private parties as long as public ownership of the facility is assured. Private contributions to facility construction may qualify for the state match.
5. Other incentives for toll road development have been established such as incentives for automated toll collection systems development, development of "smart road" information systems, and allowance for experimentation with imposition of congestion or "rush hour" fees.

All of these changes, in addition to the changes in basic funding allocations will have a significant impact on financing programs.

ALTERNATIVE TRANSPORTATION FINANCING EFFORTS

The demand for new transportation projects continues to grow as municipalities confront a backlog of deferred maintenance needs and new capacity requirements in areas of high growth. At the same time, available revenues, especially in the current recessionary environment, are limited. I want to describe a few developments that are emerging as alternatives to the traditional forms of financing. These include:

- expansion of non-gas tax revenue supported transportation financing;
• growing use of new bond security structures such as the lease/purchase financing mechanism used here in Indiana;
• growth in toll road financing;
• use of various forms of value capture financing that seek to call upon the value created from economic development surrounding certain transportation projects;
• use of direct private investment and private ownership alternatives; and
• new techniques for drawing on international capital investment.
I will describe each of these in some detail.

NON-GAS TAX REVENUE SOURCES

State and local governments are looking to a variety of alternative revenue sources to expand the resources available to meet transportation needs. These alternative revenues can help create viable security structures, or act as public equity to encourage additional private participation. According to the Road Information Program, in 1989, sixteen states derived some of their transportation funding resources from state general funds.

The dedication of specific non-gas tax revenues for transportation is growing, with California initiating a number of sales tax backed initiatives, Indiana dedicating a portion of lottery tax revenues to highway purposes, and Illinois' Build Illinois program supported by a dedicated sales tax. Virginia recently dedicated a portion of its mortgage recording tax for improvements along a six hundred mile corridor in the State. Kentucky has dedicated severance taxes on natural resources to finance its turnpike system.

In looking at special tax revenue sources as vehicles for new transportation financing programs, jurisdictions have frequently been led to consider expanding tax sources to provide a solid security structure. A variety of approaches have been taken to obtain high investment grade ratings for securities backed by these special taxes, which often have particular collection experiences that complicate financing efforts.

NEW BOND SECURITY STRUCTURES

As constraints on general obligation and gas-tax backed revenue bonds have grown, municipalities have turned to alternative financing structures to meet transportation needs. Over the last several years, the use of lease/purchase or appropriation-risk financing has grown to meet a variety of financing needs. Using this approach, the municipality does not pledge its full faith and credit obligation to meet debt service, but instead makes annual appropriations of lease payments or contractual payments to assure payment to bondholders.

The need for ongoing appropriations each year creates additional credit risk for bondholders resulting in financing that typically is rated a full-grade below that of the municipalities general obligation. Nonetheless, the mechanism can be a useful tool for providing municipal credit backing to a project that would not receive solid credit ratings from user fees and project revenues alone. Indiana, Kentucky, Virginia and Florida recently have used this type of financing approach to meet transportation needs.
GROWTH IN TOLL ROAD FINANCING

Interest in toll road financing as an alternative for levying user fees on transportation projects is increasing. According to the International Bridge, Tunnel and Turnpike Association, 902 miles of new toll road projects are now being planned in 17 states. Most of these will be publicly owned and operated. The nine demonstration toll road projects on Federal-aid roads have been approved for which 35 percent Federal funding can be used to match toll receipts. Texas completed one of the first of these projects near Houston in 1987. The states of Florida, California, Pennsylvania, Delaware, Georgia and South Carolina all have demonstration projects under development.

Toll roads have been a prominent example of the effort to create new revenue sources for transportation projects. Several of these projects have also called upon other sources of private capital by taking advantage of land donations, along with right-of-way, made by private landowners or developers who may wish to benefit from interchange locations or associated development in the corridor.

The concept of private toll roads has also reemerged. Private toll roads were a common approach to financing road needs in the United States in the 1800s and continue to be quite common outside the U.S., particularly in Europe. The current road system in the U.S., however, has been constructed with almost no reliance on private toll roads aside from major private real estate developments. Most recently, there was the approval of a new, fifteen mile, private toll road facility in Northern Virginia to be built and operated by the Toll Road Corporation of Virginia. In addition, in 1989, the California legislature approved the development of up to four privately funded, for-profit toll roads, bridges, and tunnels in the state over the next ten years. The California Department of Transportation has conditionally approved four projects.

Other private toll road proposals under discussion include a project by the Front Range Toll Road Company in Colorado and a proposal for a 400 mile long project between Chicago and Kansas City. In general, tolls for private toll roads under consideration are set to provide a rate of return for investors. Public toll roads establish toll levels to provide revenues sufficient to meet debt service, operations and maintenance with sufficient reserves and cash flow coverage to provide for contingencies.

VALUE CAPTURE FINANCING

In order to capture a portion of enhanced real estate values associated with transportation improvements, several jurisdictions have created special assessment districts to impose special real estate tax assessments and collections that are dedicated to debt service for the improvements. Among the credit considerations that need to be addressed, especially in view of the economic slowdown for many real estate sectors, is the consequence of lower appreciation and development on assessment revenues. The potential impact of zoning changes should also be addressed. For example, in 1989, Fairfax County, Virginia passed downzoning requirements that would have affected a transportation assessment district that helped finance the widening of Route 28 in that area. Subsequently, State legislation was passed that exempted the district from the downzoning requirements.

Similar in concept to special assessment districts, tax increment financing captures a portion or all of the property tax increases resulting from a transporta-
tion improvement. This mechanism minimizes the requirements from existing revenue sources, but brings with it greater security questions because of the reliance on expected economic development. Nevertheless, especially for projects designed to meet new capacity demands created by rapid growth, the approach can be an effective financing mechanism.

PRIVATE INVESTMENT ALTERNATIVES

Beyond expanding available revenues that may be committed to transportation projects, a number of mechanisms are being called upon to increase the level of direct private capital used to finance transportation projects. These include:

1. **Private Donations.** Private donations have been a growing source of capital in high growth areas as a method of speeding desired infrastructure development. Donations can take the form of monetary contributions, donations of property or services. These donations may be made in return for expedited construction or interchange locations.

2. **Negotiated Investments.** Private developers have entered into agreements to contribute resources to a transportation project in exchange for zoning allowances or development approvals. This approach has been successfully used in Tysons Corner, Virginia and San Diego County, California.

3. **Transportation Corporations and Road Utility Districts.** This mechanism has been used in Texas as a means of encouraging private contributions to transportation projects. By contributing land or services to a non-profit entity, private property owners can obtain tax deductions and can expedite the development process.

4. **Transportation Utilities.** In the spring of 1989, Illinois passed the Illinois Investor-Owned Tollroad Utility Company Act. This new law established a framework for the operation of private transportation projects in the state. The Virginia Toll Road Corporation will function similarly in Virginia as a regulated utility under the Securities and Corporation Commission.

5. **Land Banking.** In land banking, a private agency purchases land that will benefit from transportation improvements and holds it for future resale to realize development opportunity profits. This form of value capture incurs up front costs, but increases the return realized from future development.

6. **Sale or Lease of Development Rights.** In Boston, a developer negotiated a long-term lease for air rights over a portion of the Massachusetts Turnpike for mixed-use development. The proceeds went to turnpike improvements. Associated development for airport and port properties can be a critical part of the financing package.

Private financing techniques for a completely private transportation project may include any of the array of financing alternatives available to other private projects. These include equity contributions, which may come from a single investor, a partnership, or a consortium. Or, equity may be raised through a private or public sale of equity interests. For example, the Channel-tunnel project between England and France was financed through the public sale of equity interests in the project. Debt financing may take the form of bank loans, private placement, or the public sale of debt.

Typically, the scope and complexity of most major transportation projects requires a combination of financing techniques to achieve a cost-effective financ-
ing structure. For example, a combination of equity, subordinated debt and senior debt may be proposed to tap different types of investors with different appetites for investment risk. The size of the financing, nature of the project, and available equity from the development will all contribute to a determination of the nature of the securities to be sold and the method of sale.

INTERNATIONAL CAPITAL SOURCES

Favorable tax laws on depreciation of transportation assets, such as rail cars, which exist in several foreign countries, have created sources of international investment capital for U.S. transportation projects. Several major transit companies, such as the Metropolitan Transportation Authority, the Massachusetts Bay Transportation Authority, the Los Angeles County Transportation Commission, and others have benefitted or are evaluating the effectiveness of such cross-border equipment leases. International banks may be an important source of financing for traditional project financing structures as well. In the current banking environment, their participation has been more limited.

INDIANA’S TRANSPORTATION EFFORTS

I have worked with the state on the financing program for the Indiana Transportation Finance Authority since its first bond sale in 1988. There are many aspects of the program that have provided models for other states searching for alternative means of meeting transportation needs. The program has proven to be very flexible in terms of providing a bond structure that allows for changes in projects and inclusion of particular segments.

Leaving macroeconomic productivity improvements aside, the more direct benefits of construction spending on transportation projects here in Indiana are clear. The Indiana Transportation Finance Authority has raised over $164 million for construction since 1988. Using national averages calculated by Apogee Research, a consulting firm in Washington, D.C., this level of construction spending generated additional indirect benefits of 2.8 times that amount. Over 6800 jobs are estimated to have been added based on their estimated multipliers for highway construction spending nationwide. These benefits have been spread across the State with over 25 projects across the state receiving funding.

State officials have put considerable effort into maximizing the dollars available for construction by implementing widespread productivity improvements.

SUMMARY

As alternative financing structures continue to emerge, the basics of a sound financing structure remain the same:

- Sufficient revenues and capital must be identified to develop a sound security structure;
- The financing plan should maximize the effectiveness of available revenues, existing capital, tax benefits and associated resources; and
- The financing itself should take advantage of the array of financial instruments available to achieve the least cost financing.

Choosing the right team of advisors can be an important part of completing a project successfully.