Research Report
KTC-01-08/UI-1-00-1F

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INNOVATIVE FINANCING OPTIONS FOR KENTUCKY'S TRANSPORTATION INFRASTRUCTURE

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INNOVATIVE FINANCING OPTIONS FOR KENTUCKY'S TRANSPORTATION INFRASTRUCTURE

by

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EXECUTIVE SUMMARY

A strong linkage exists between economic growth and the availability of an adequate and efficient transportation system. Due to its location, geography and economy, this linkage -- particularly in regard to highway transportation -- is critical to continued economic progress in the Commonwealth of Kentucky. However, Kentucky's ability to provide the infrastructure investments needed to be competitive in the new "global economy" is constrained by the structure of its funding mechanism, the Road Fund. During the last two decades, Road Fund revenue growth has dramatically lagged the growth of motor vehicle travel. As a consequence, Kentucky faces highway investment needs which exceed projected revenues. In fact, Kentucky Transportation Cabinet officials estimate that there are some $22 billion in "unscheduled highway needs" beyond the $18.2 billion of highway projects which can be accomplished with anticipated Road Fund revenues over the next 20 years. As a consequence, Kentucky, like other states, must search for alternative and innovative means of financially supporting the continued maintenance and development of the state's system of roads.

Kentucky's Road Fund has been the principal revenue source for highway construction and maintenance since 1920 when the first motor fuels tax was enacted. The Road Fund was strengthened in 1945 with the passage of a constitutional amendment requiring that all motor vehicle fees and taxes be used only for public roads. These vehicle-related revenues include taxes, licenses, permits, tolls and special charges. Although the Road Fund has hundreds of revenue types, more than three-quarters of the total is derived from just two tax categories -- motor fuels taxes and motor vehicle usage taxes. And though both these tax types are equally important to the Road Fund, their respective contributions have changed significantly over the past 20 years. While the vehicle usage tax's contribution to the total has grown by 67%, the fuel tax's share has dropped by 20%.

This disparate performance can be attributed to the differing structures of the two highway user fees. The vehicle usage tax has grown steadily with the economy over recent years because the tax is assessed based on value of each vehicle sold. Conversely, the motor fuels tax revenue has experienced little growth because the tax is a flat rate for each gallon of fuel sold. Consequently, even though vehicle travel has increased, motor vehicle efficiency has increased to the degree that motor fuels tax revenue growth has been limited. This slow growth during a period of rapid expansion in system utilization has created a major funding problem for the state. Consequently, the identification of improved financial practices and viable

sources of supplemental or leveraged funding is an important transportation financing policy challenge for the Commonwealth.

Given the need to maximize Kentucky's limited highway system funding, the purpose of this study was to review and analyze new transportation financing innovations suggested by the Federal Highway Administration. The FHWA suggestions may provide ways to leverage funds from traditional sources and to incorporate new sources of revenue into the Commonwealth's transportation financing plan. In the study, the workings of these financing innovations were evaluated and other states' applications of these financing techniques were reviewed. In addition, a preliminary assessment was made of the potential applicability of these financing innovations in Kentucky. Obstacles and barriers to their use were also identified.

Five general categories of innovative transportation financing options were evaluated, including:

- The **TE-045 Program,** which began in 1994, was designed to give states more flexibility in their use of the FHWA federal aid program. The program offers both "investment tools" (such as flexible match provisions, Section 129 project loans using federal grants, Section 1044 toll credits, and reimbursement of bond funding costs) and "cash flow tools" (including post-ISTEA advance construction, partial conversion of advance construction, phased funding, and tapered match).

- **State Infrastructure Banks (SIBs)** are simply state-run revolving loan funds that provide direct loans for transportation projects.

- **GARVEEs (grant anticipation revenue vehicles) and FRANs (federal reimbursement anticipation notes**) are specially secured debt instruments used to generate construction funds for transportation projects. In the language of the municipal bond industry, these debt instruments fall within the general category of GANs (grant anticipation notes), with the grants in this instance being federal aid highway grants. The major difference between GARVEEs and FRANs is whether their source of security is considered "direct" or "indirect." If the connection between the bonds, the projects financed and the federal reimbursement is sanctioned by the FHWA, the bond may be considered a GARVEE. If, by contrast, the bonds, the projects and the repayment tie is less specific, the term FRAN applies to the financing arrangement.

- **The TIFIA (Transportation Infrastructure and Innovation Act)** program was approved by Congress in 1998 and provides federal credit assistance to major transportation investments of critical national importance. Among the types of projects eligible for TIFIA funding are major highway trade corridors, intermodal facilities, and transit and passenger rail facilities with regional or national benefits. The Act was designed to fill funding gaps not met by project revenues and leverage substantial co-investment from the private sector by providing supplemental and subordinate capital. This assistance most often takes the form of direct federal loans, lines of credit, or loan guarantees.

- **Public/Private Partnerships** combine a wide variety of funding techniques with the involvement of entities not traditionally associated with state transportation projects, such as developers and public-private consortia. These financing innovations include private toll roads, tax increment financing, 63-20 corporations, and shadow tolls. While the first two are self evident, the latter two bear explanation. The 63-20 corporations result from IRS Ruling 63-20 that permits private, not-for-profit corporations to issue tax-exempt bonds for public purposes. Shadow tolls are payments made to private firms who construct or operate transportation facilities based on motorists' use of the facility.

The study's review of these options has led to the following observations, recommendations and conclusions regarding these transportation system financing innovations:

- **TE-045:** Of the eight funding tools provided by the TE-045 program, states have made the most use of Advance Construction and Flexible Match. While Kentucky has used and continues to use the Advance Construction option, it has not employed the other TE-045 opportunities in a major way. It is suggested that the Commonwealth consider utilizing the Flexible Match option, specifically the use of toll credits as "soft match" for federal projects. By using the soft match, state matching funds can be preserved for other needs.

- **SIBS:** This study found that SIBs were the most widely used transportation funding innovation as 31 states have employed this funding technique. These state revolving funds make loans and provide other forms of non-grant assistance to transportation projects. Over $765 million in loans have been arranged since Congress approved this concept in 1995 and permitted the states to capitalize the SIBs using their federal highway aid funds. This

funding approach was significantly modified in 1998 when this provision (capitalizing with federal highway funds) was modified to limit eligibility to only four states. However, the SIB approach still offers an opportunity to leverage existing resources and tap new funds to provide an additional financing source for an expanded number of state project priorities. Kentucky officials must determine if these largely long-term advantages outweigh the short-term impacts created when state resources are first used to capitalize the SIB.

- **GARVEEs /FRANs:** By permitting states to issue bonds which are backed by and repaid with future federal highway grants, GARVEEs and FRANs provide another useful financing vehicle for Kentucky. The major advantage of this financing approach is that it permits states to speed up their delivery of needed construction projects. The rating agencies have tended to view the debt service source for these bonds to be relatively secure and have provided good bond ratings for such bonds. Kentucky might want to use this type of funding for special, high priority projects that are likely to be constructed with the more restricted categories of federal funds, such as the Appalachian Development, Interstate Highways, and Bridge Programs. Projects that might otherwise take 10 years using federal aid as it incrementally becomes available could potentially be bonded and moved to immediate construction.

- **TIFIA:** The Transportation Infrastructure Finance and Innovation Act can provide up to one-third of a major project's cost, with the other funding coming from conventional state and federal grants, or from alternative sources such as co-investment from the private sector and project-generated revenue. The USDOT's first eight TIFIA projects are underway and involve a wide variety of funding structures. Because of the size and other eligibility requirements (a minimum of $100 million total investment and judged to be a project of national or regional significance), TIFIA has limited applications in Kentucky. However, there are several known projects that appear to be eligible, such as the Louisville Bridges project, the multi-modal facility planned for the Bowling Green area, and proposed light rail projects in two of Kentucky's major metropolitan areas. While TIFIA financing is viewed as perhaps the most complex of the innovative financing techniques examined in the study, the program has the potential to bring critical credit instruments to the largest projects.

- **Public/Private Partnerships:** This group of funding options is designed to augment and broaden the pool of participants involved

in providing state transportation financing. Among the possible project funding partners are private companies, consortia, not-for-profit organizations and even local governments. The arrangements and options can be as varied as the partners, but typically such projects are supported by "non-traditional" revenue sources (not vehicle taxes or fees). These may include tolls, developer fees, tax increments, in-kind contributions, and shadow tolls. Toll roads, as a source of revenues for public/private partnerships appears viable. However, toll roads are being phased out in Kentucky, so the possible utilization of this financing measure would involve a change in current state highway financing policy. Tax increment financing offers promise, particularly for projects where significant property value gains are anticipated as a result of new transportation project investments. Shadow tolls, although not yet tried in the United States, may be worthy of further exploration, particularly as a means of testing the market efficiencies of privatizing some of Kentucky's public roads.

In summary, Kentucky faces significant transportation financing challenges. The relative slow growth of Road Fund revenues as compared to highway use has limited the state's ability to deliver needed transportation system improvements. For the future, lacking major reforms of the Road Fund tax structure, it appears that Kentucky will continue to face transportation funding limitations. The various innovative financing "tools" suggested by the Federal Highway Administration offer imaginative and intriguing ways to extend, supplement, and leverage current and potential new financing sources. This study provides an overview of those techniques and sources reviews their applications in other states, and assesses the opportunities and barriers to their implementation in the Commonwealth. The conclusion is that these techniques offer significant potential value in the form of enhanced financial flexibility for state transportation officials, broadened involvement for more partners in the processes, and expanded resources and improved creditworthiness for transportation projects. Transportation Cabinet officials and state transportation policy makers have a considerable menu of workable innovative financing choices from which to select as they seek to more effectively manage Kentucky's limited transportation resources.

CHAPTER 1: INTRODUCTION

An adequate and efficient transportation system is critical in the modern world. The ability to safely and efficiently move people and goods is essential for economic progress and an enhanced quality of everyday life. Americans have come to rely on their highways, airports, waterways and railroads as integral components of virtually everything they do. This is particularly evident in the Commonwealth of Kentucky because of its location, geography, history, and social and economic background.

Kentucky has enjoyed some notable successes over the past several decades improving its quality of life. The state has experienced substantial improvements in the education of its children, the health of its citizens, and the diversification of its economy. However, these benefits have not accrued uniformly across the Commonwealth. While some regions and metropolitan areas have witnessed significant economic progress, large areas of the Bluegrass State still struggle with high unemployment and low personal incomes. Studies have indicated a strong linkage between quality transportation infrastructure and economic progress. Moreover, there is an increasing perception that the state's transportation system may be a limiting factor to further growth, even in those areas of the Commonwealth that have realized strong economic growth in recent years. Relatively recent economic phenomena such as "just-in-time" delivery, the "new economy," and the "globalization" of markets, have made reliable, fast and efficient transportation a basic minimum requirement for full participation in the business world of the 21st Century.

1.1 TRANSPORTATION NEEDS EXCEED AVAILABLE FUNDING

Kentucky is faced with a growing challenge to fund the transportation improvements necessary to keep the state competitive in the global marketplace. State and local governments, as the providers of the public road system, currently rely on a stream of taxes and fees from road users to cover virtually all highway costs. However, because of the structure of these fees, highway revenues have not kept pace with the growth of motor vehicle travel. Officials of the Kentucky Transportation Cabinet report that there are currently some $22 billion in "unscheduled highway needs" beyond the approximately $18.2 billion in projects that can be funded with anticipated revenues during the Cabinet's 20-year long term planning horizon.

In like manner, limited resources are imposing constraints on the improvement of infrastructure required for other modes of travel. The federal government provides some infrastructure funding for airports and waterways, but private industry is more heavily relied upon to support infrastructure investment for other modes of transit. For example, railroads are almost entirely funded by the private sector. For all of these systems, competition for government funds is intense, and private investment is often constrained because of the risks associated with the complexity of the projects, the magnitude of the costs, and the long-term nature of the payback.

1.2 PURPOSE OF THIS STUDY

Federal officials have recognized the challenges that limited funding streams have placed on the states and have worked with Congress to develop a number of "innovative financing" methods or tools to assist states in leveraging their limited highway construction and maintenance funds. These methods include several new borrowing programs, which provide opportunities for direct involvement of the private sector and/or local government entities in project financing.

The purpose of this study is to review and analyze new transportation financing options that might provide the Commonwealth with innovative ways to supplement or leverage funds from traditional sources. This examination will focus on selected financing options suggested by the Federal Highway Administration. While most of these options are designed to address highway improvements, the study will also consider how these innovations might be applied to transit projects or projects that are "intermodal" and, as such, connect the roadway system to the other modes of transportation. Facilities that serve freight movement are the most common examples of this hybrid type of project.

1.3 INNOVATIVE FINANCING TECHNIQUES

The following table, Table 1, displays the five major innovative transportation financing techniques, as they have been categorized for the purposes of this study. This separation and differentiation of these approaches is provided to highlight similarities and differences among the innovative financing schemes. However, it is important to note that states and other jurisdictions often combine multiple options in assembling a complete funding package for their projects. These financing tools can easily complement each other as components of an overall funding strategy.

Table 1. Innovative Transportation Finance Tools

Innovative Financing Technique	*Type of Funding Support Provided or Generated*	*Typical Projects*	*Project Sponsor(s)*
TE-045 Program	Flexible Matching Provisions, State Loans of Federal-aid Funds, Simplified Funds Management	Any Federal-aid Projects	State DOT
State Infrastructure Banks (SIBs)	Direct State Loans	Any Projects (Normally Smaller)	Local Govt., Public/Private Consortia
GARVEEs/ GANs/FRANs	Municipal Bonds Backed by Future Federal Funds	Any Projects (Normally Larger)	State DOT, Transit Authorities
TIFIA	Direct Federal Loans, Federal Loan Guarantees, Stand-by Lines of Credit	Major Projects, of National or Regional Significance	State DOT, Local Govt., Public/Private Consortia
Public/Private Partnerships	Private Contributions, Special Taxing Districts, Tax-Exempt Bonds, Tolls	Any Projects	State DOT, Local Govt., Public/Private Consortia

1.4 STUDY APPROACH

The following chapters in this report review Kentucky's current road funding sources and the various innovative transportation finance programs which are now available to the state. There is a general description of each program or technique, a review of uses of the financing approach by other states or jurisdictions, a general guide to the steps required to employ each technique, and finally, an identification of both opportunities for and barriers to Kentucky's utilization of the approach to address projects in the Commonwealth. While most of the effort in this study has been focused on the financing tools offered directly by the US Department of Transportation, some attention has also been given to other techniques that USDOT officials have recognized as viable options. To provide additional clarity, Appendix A provides a glossary of terms.

CHAPTER 2: SOURCES OF FUNDING FOR KENTUCKYROADS

Kentucky has traditionally relied on conventional methods for financing its transportation system improvements. The Commonwealth began its highway program in 1920 when the Department of State Roads and Highways was created and the first motor fuels tax was enacted. Kentucky was the fifth state to impose such a tax and the rate was initially one cent per gallon. The tax proceeds were deposited into a special fund called the Road Fund. This funding mechanism for roads was considerably strengthened in 1945 with the passage by the voters of a constitutional amendment known as the Gasoline Anti-diversion Amendment.[1] Under this new section of the Constitution (Section 230), all taxes and fees derived from motor vehicles operating on Kentucky's public highways must be used for the maintenance and construction of public roads or the enforcement of traffic laws.

Kentucky's Road Fund has been the predominant revenue source for highway construction and maintenance since the beginning of the program. An analysis of financial records for 1965-2000 reveals that during the last 35 years, the Road Fund has accounted for approximately two-thirds of all highway-related expenditures by the Commonwealth. Other revenue sources that have provided significant funding for the state's road system include state bond proceeds and grants from the U.S. government. These latter categories of monies have been almost exclusively expended for the construction or reconstruction of Kentucky's roads. For instance, Federal funds covered much of the cost of constructing the Interstate Highway System in the 1950s and 60s. Bond funds, which are repaid with Road Fund receipts, were used to build the state's parkways in the 1960s and 70s, and various other major corridor improvement projects in the 1980s and 90s. In the past few decades, however, their percentage (bonds and federal receipts) of total road system expenditures has steadily declined while the Road Fund's share has increased. See Figure 1. Given that the Road Fund has always been the key component for funding highways in Kentucky and that its importance is in fact growing, state policy makers should continuously examine its makeup and performance.

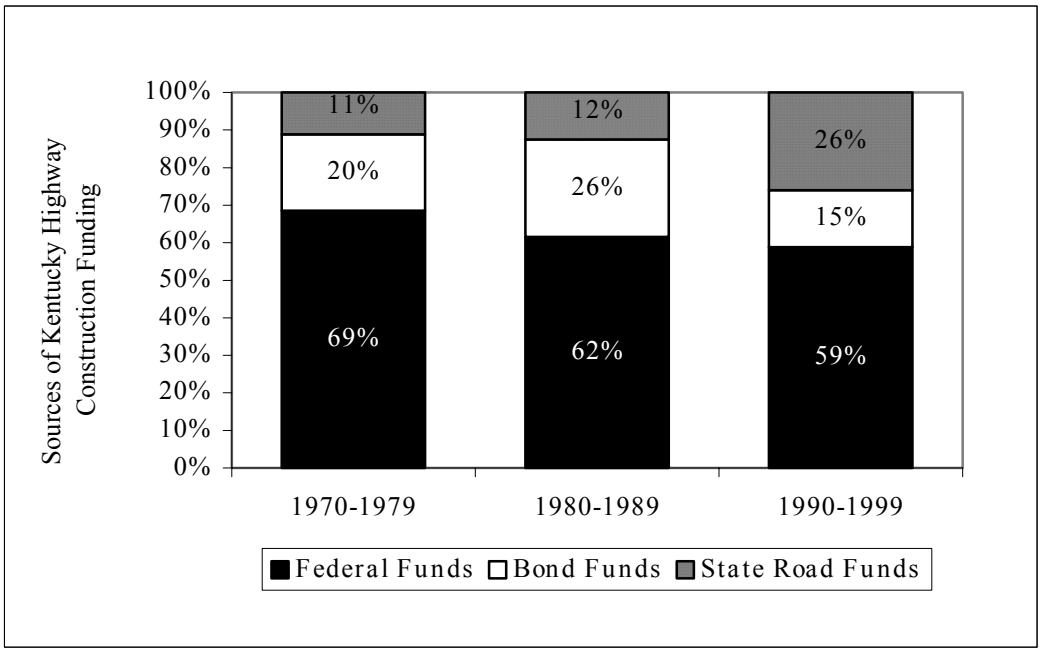
2.1 COMPOSITION AND PERFORMANCE OF THE ROAD FUND

The Road Fund receives revenue from literally hundreds of different road user charges, including taxes, fees, licenses, permits, tolls, and special service charges. However, two taxes make up more than three-quarters of total Road Fund revenue. The motor fuels tax, which was the first tax

[1] Banks-Baldwin, Baldwin's Kentucky Revised Statutes Annotated, 1999.

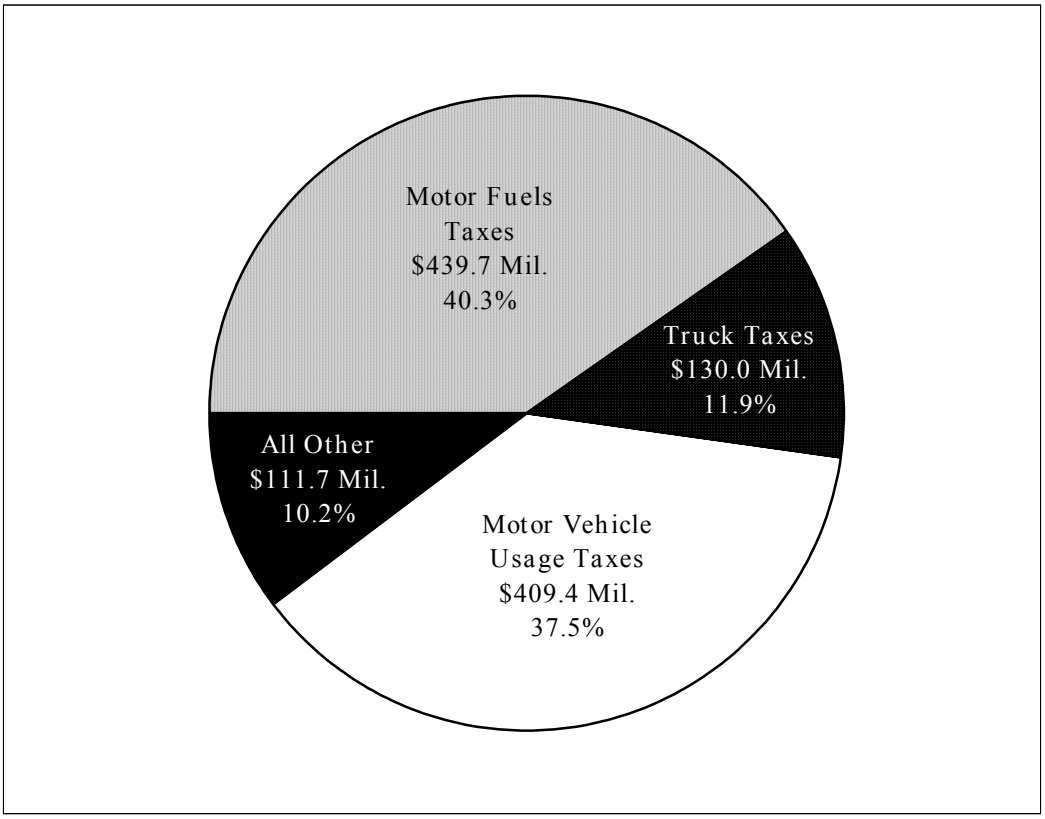
approved for state highways in 1920, remains the leading user fee, producing approximately $440 million in fiscal year 1999-2000. The motor vehicle usage tax, which is collected much like a sales tax when vehicles are sold, accounted for slightly less than that amount -- almost $410 million in the same year. Taken together, these two taxes contributed approximately 78 percent of the Road Funds $1.1 billion of revenue receipts taken in during FY 2000. See Figure 2.

Figure 1: Trends in Kentucky Highway Construction Funding by Major Source



Source: Kentucky Transportation Cabinet

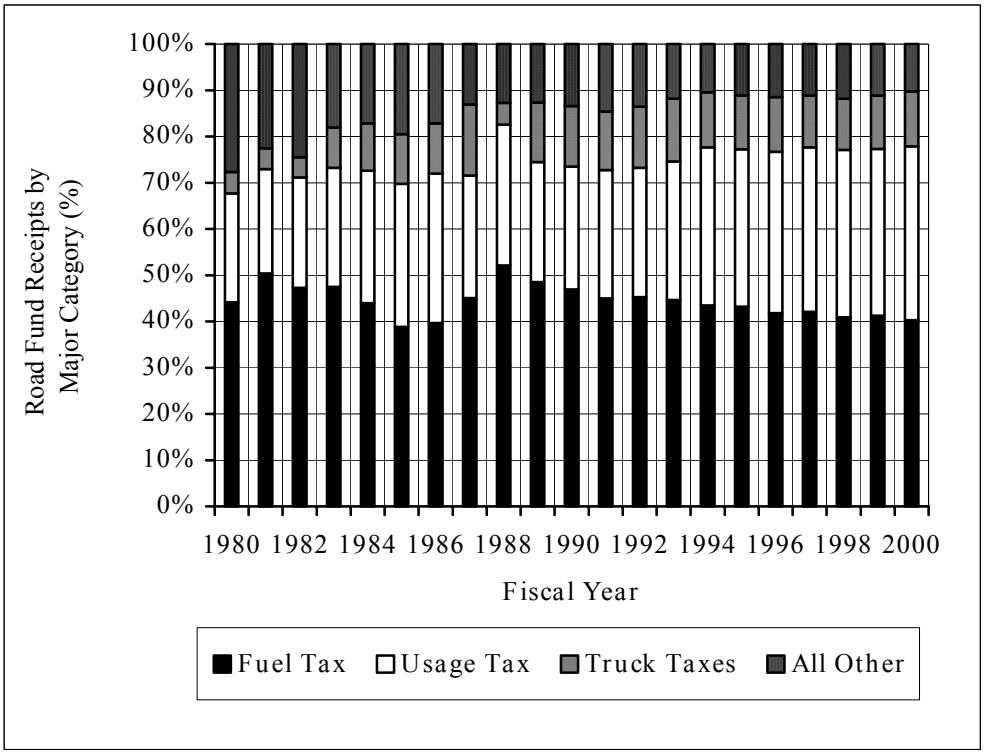
Figure 2: Road Fund Revenues by Major Tax Category (FY 2000) Total $1.1 Billion



Source: Kentucky Transportation Cabinet

The structures of these two user fees have affected how their respective contributions to the Road Fund have changed over time. See Figure 3. The vehicle usage tax, as a percentage of the overall Road Fund, has steadily increased over the years. In the 20 fiscal years from 1981 to 2000, it has grown from 22.5% to 37.5% of the total, an increase of approximately 67%. On the other hand, the fuels tax share, as a percent of the total, has declined some 20% -- dropping from more than half (50.4%) in FY81 to just 40.3% of the Road Fund two decades later. This disparate performance is more remarkable given the fact that the basic fuel tax rate was actually increased by 50% during this period (in 1986), while the usage tax rate was increased by only 20% (in 1990).

Figure 3: Trends in Road Fund Revenues by Major Source (1980 – 2000)



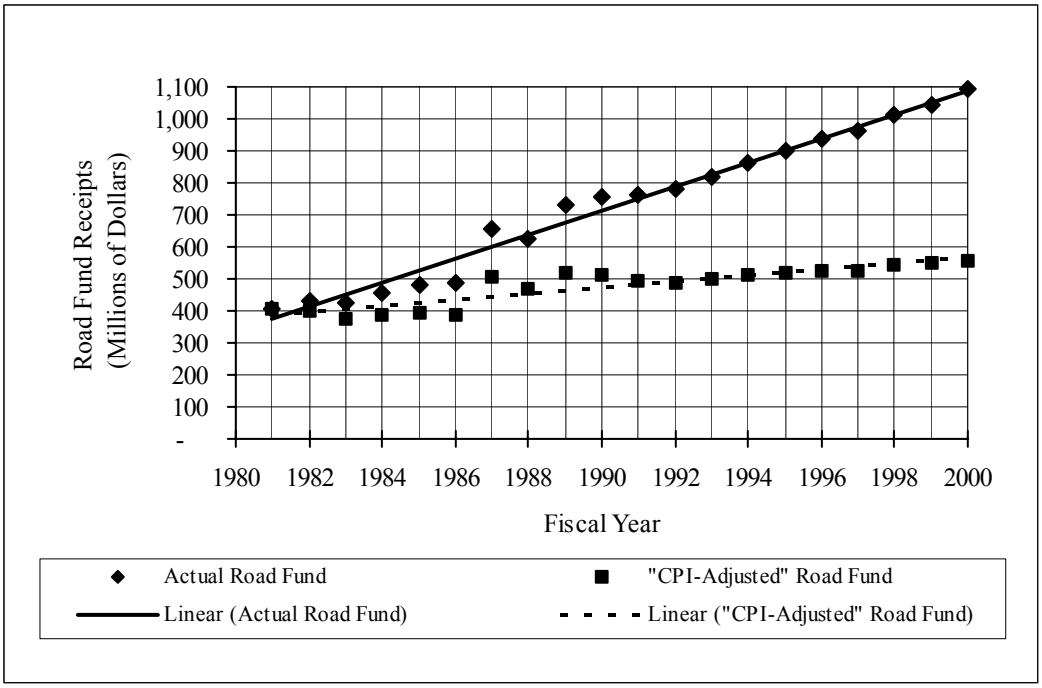
Source: Kentucky Transportation Cabinet

The usage tax is calculated based on the value of the vehicles sold. These values have increased significantly as automobile and truck markets have changed and vehicle prices have increased. By contrast, the fuels tax is assessed at a flat rate on each gallon sold. Its growth is entirely dependent upon increases in fuel consumption. Although vehicle miles of travel have increased, there have also been substantial gains in motor vehicle fuel efficiency. Consequently, fuel tax revenue has grown at a much slower rate than the increase in road usage. Since expanding road use creates the need for new roads and more maintenance expenditures, there is a growing disconnect between this major highway funding mechanism and the costs it must cover. This disconnect has brought into question the structure and adequacy of Kentucky's Road Fund.

It is useful to compare the change in Road Fund buying power to the change in public highway use in Kentucky during the past 20 years. First, it is appropriate to adjust the revenue stream of the Road Fund to account for the negative effects of inflation. Figure 4 displays two trend lines -- actual or "nominal" Road Fund receipts and the same receipts after adjustments for the impact of inflation, as quantified by the U.S. Department of Labor's CPI

(Consumer Price Index) have been made. The CPI-adjusted trend displays the change in the real purchasing power of the Road Fund. The chart shows that although nominal receipts to the Road Fund grew by an average of 5.6% annually over this 20-year period, the real buying power of the fund only increased by approximately 2.0% per year.

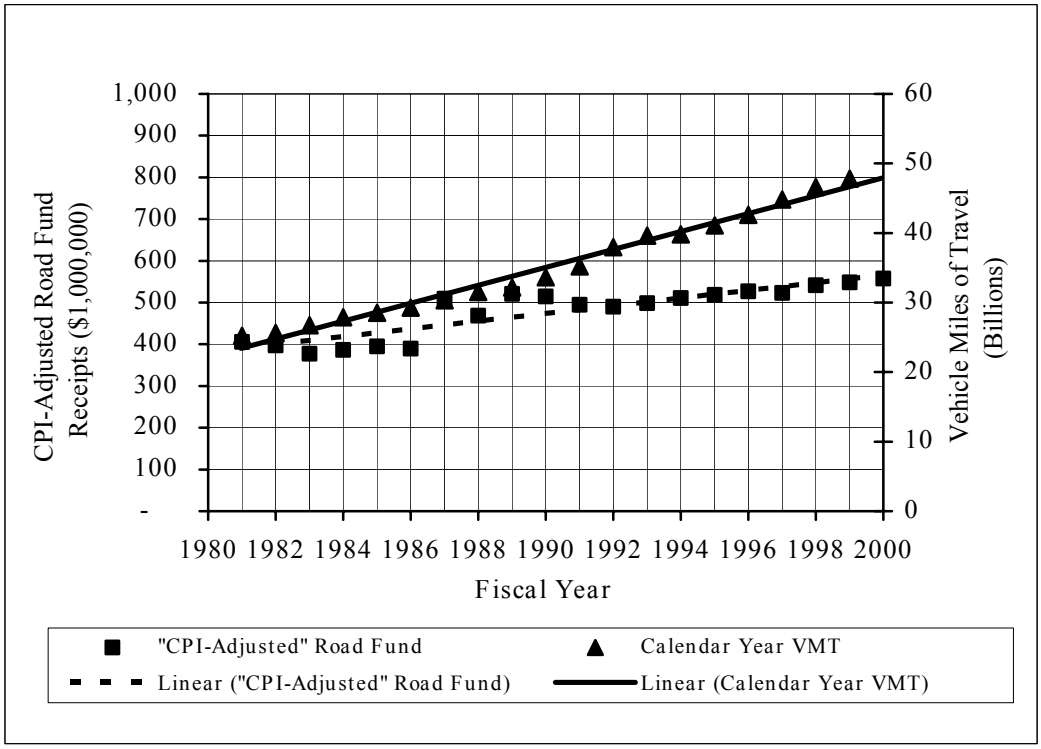
Figure 4: Trends in Nominal and CPI-Adjusted Road Fund Revenue Receipt (1980 – 2000)



Source: Kentucky Transportation Cabinet

It is difficult to find a "pure" measure of the amount of use or "wear-and-tear" that motorists impose on a highway system. However, a relatively simple measure is vehicle miles of travel (VMT). Increased travel produces the need for more capacity (new lanes or roads) and requires increased efforts for maintenance and repair. Figure 5 displays the CPI-adjusted Road Fund alongside VMT for the same 20-year time frame. As the purchasing power of the Road Fund grew by 37.6%, the miles traveled on Kentucky's roads increased approximately 2.4 times as quickly, by 90.0%. Based on this analysis, Kentucky's primary mechanism for funding the costs related to its highway system is not keeping pace with the travel demands being placed on it.

Figure 5: Trends in CPI-Adjusted Road Fund Revenues Compared to Vehicle Miles of Travel (VMT)



Source: Kentucky Transportation Cabinet

2.2 THE PAY-AS-YOU-GO APPROACH

Kentucky has traditionally employed a pay-as-you-go financing method for its highway construction and maintenance projects. Pay-as-you-go simply means that project funds are collected and set aside in a separate account prior to beginning the project. Among the benefits of this funding approach is that it simplifies the budgeting and accounting processes for road projects, and insures that projects, once started can be completed, even in times of declining Road Fund tax revenues. This funding policy also leads to substantial cash balances in the Road Fund, which generate supplementary investment income. Moreover, these cash balances provide evidence of the ability of the Commonwealth to meet debt service obligations on outstanding road bonds as well as new bonds which may be sold to acquire funds for road construction and maintenance. Such evidence can enhance bond ratings and reduce the cost of borrowed capital.

However, the pay-as-you-go or "cash flow" financing approach has the disadvantage of tying up resources while sufficient revenues are accumulated

to fully finance individual projects. As a result, the safety, efficiency, convenience, and economic development benefits of projects are delayed. Moreover, delaying construction until funds are available (pay-as-you-go) may have the negative effect of increased project costs due to inflation. This financing approach will be explored further later in this chapter.

2.3 MUNICIPAL BONDS

While Kentucky has relied heavily on pay-as-you-go, it has not done so to the exclusion of other highways financing strategies. For example, Kentucky has periodically issued tax-exempt bonds to finance highway projects. The Commonwealth first utilized this approach in the late 1950s when the nation was undertaking the construction of the Interstate Highway System. While the federal government was the principal financier of this system, Kentucky and other states chose to borrow some of their required matching share of the system's cost. Thereafter, in the 1960s, the Commonwealth constructed its own network of interstate-like toll roads, which crisscrossed the state providing access to areas not reached by the interstates. In the late 1970s, bonds were issued to build roads in eastern Kentucky to facilitate the hauling of coal. Most recently, from the mid-80s through the 1990s, multiple bond issues were sold to finance hundreds of projects aimed at fostering economic development throughout Kentucky. During the years of 1965-2000, bond funds supplied 18% of road construction expenditures. The Commonwealth has issued nearly $3 billion in "new money" bonds since 1954. Of course, many of the original bonds, with final maturities ranging from 20 to 40 years, have been refunded and/or have reached maturity. See Table 2. As of June 30, 2000, according to the Kentucky Turnpike Authority, the state had approximately $1.2 billion in highway debt outstanding.

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TABLE 2. Commonwealth of Kentucky Highway Bond Issues

		Amount of Issue		
Date	**Type of Issue**	**New Money**	**Refunding**	**Totals**
July 1, 1954	Kentucky Turnpike G.O.	38,500,000		38,500,000
July 1, 1957	General Obligation	100,000,000		100,000,000
July 1, 1960	Toll Road	40,500,000		40,500,000
July 1, 1961	General Obligation	90,000,000		90,000,000
July 1, 1961	Toll Road	118,000,000		118,000,000
January 1, 1962	Toll Road	29,000,000		29,000,000
July 1, 1963	Toll Road	70,000,000		70,000,000
July 1, 1963	General Obligation	139,000,000		139,000,000
July 1, 1966	Toll Road	137,500,000		137,500,000
January 1, 1969	Toll Road	90,000,000		90,000,000
July 1, 1970	Toll Road	60,000,000		60,000,000
January 1, 1971	Toll Road	100,000,000		100,000,000
April 1, 1971	Toll Road	90,000,000		90,000,000
October 1, 1971	Toll Road	85,000,000		85,000,000
June 1, 1972	Toll Road Refunding		159,385,000	159,385,000
June 1, 1977	Resource Recovery	212,000,000		212,000,000
March 1, 1978	Toll Road Refunding		280,490,000	280,490,000
October 1, 1978	Resource Recovery	250,000,000		250,000,000
November 1, 1979	Resource Recovery	148,520,000		148,520,000
September 1, 1981	Resource Recovery Refunding		350,560,000	350,560,000
September 10, 1981	Toll Road Refunding		232,425,000	232,425,000
April 1, 1984	Economic Development	300,000,000		300,000,000
October 15, 1984	Toll Road Refunding		218,705,000	218,705,000
June 1, 1985	Resource Recovery Refunding		309,961,261	309,961,261
June 1, 1986	Toll Road Refunding		226,385,000	226,385,000
July 1, 1986	Economic Devel. Refunding		367,690,000	367,690,000
May 1, 1987	Resource Recovery Refunding		149,540,000	149,540,000
November 1, 1987	Economic Development	36,600,000		36,600,000
June 1, 1988	Resource Recovery Refunding		45,910,000	45,910,000
October 1, 1990	Econ. Devel. (Revitalization)	307,820,000		307,820,000
October 1, 1992	Econ. Devel. (Revit.) Refunding		250,493,658	250,493,658
April 1, 1993	Econ. Devel. (Revit.) New/Ref.	150,000,000 *	420,540,000 *	570,540,000
June 3, 1993	Toll Road Refunding		94,370,000	94,370,000
April 1, 1995	Econ. Devel. (Revit.) New/Ref.	150,000,000 *	87,890,000 *	237,890,000
October 6, 1999	Econ. Devel. (Revit.) Notes	75,200,000		75,200,000
October 27, 1999	Econ. Devel. (Revit.) Notes	25,000,000		25,000,000
October 10, 2000	Econ. Devel. (Revit.) Notes	100,000,000		100,000,000
November 15, 2000	Econ. Devel. (Revit.) Refunding		179,825,000	179,825,000
	TOTALS	**2,942,640,000**	**3,374,169,920**	**6,316,809,920**

* In those bond issues that combined both New Money and Refunding, the amounts displayed for New Money represents only the legislatively authorized amount for new bonds. No attempt was made to pro-rate costs of issuance, capitalized interest, etc., all of which are contained in the Refunding figures.

Source: Kentucky Turnpike Authority

2.4 FEDERAL ADVANCE CONSTRUCTION PROGRAM

Kentucky has also made limited use of a federal program known as Advance Construction. This program allows a state to proceed with federally approved projects using state resources prior to the federal aid reimbursement becoming available. This approach was employed on a limited basis until changes were made to the program in 1995. Previous provisions in the federal transportation authorization law prevented the use of Advance Construction (AC) beyond the term of the current authorization act. This meant that a state could not continue its AC program in the final years of an act. Since Congress never enacted subsequent reauthorization bills prior to the expiration of the most current act, the use of AC involved a series of stops and starts. The NHS (National Highway System) Act of 1995, however, removed this barrier and allowed states to pre-obligate funds anticipated beyond the last year of the currently effective authorization. The Commonwealth has recently taken advantage of this flexibility by gearing up a more aggressive Advance Construction program. During Fiscal Year 1998-99, AC project commitments achieved a level in excess of $250 million. The Transportation Cabinet's current 2000-02 Biennial Highway Construction Program contemplates this level reaching more than $400 million by June 30, 2002.

2.5 FUNDING APPROACH AND EXPERIENCE

Kentucky's highway infrastructure financing policy has been similar to other states -- using primarily the pay-as-you-go approach to apply state user fee revenues, combined with Federal Highway Trust Funds, and supplementing these with borrowing. Like Kentucky, transportation officials throughout the nation have expressed concern that their departments are losing ground in their efforts to match slow-growing Road Fund revenues to fast-growing roadway use and public demands for improved services. It should be noted that a recent positive development has been a significant increase in fund distributions from the Federal Highway Trust Fund. Kentucky has been one of the many beneficiaries of this change in federal policy. This new federal legislation, enacted as the Transportation Equity Act for the 21st Century (TEA-21), allowed more of the road user fees flowing into Washington to be more expeditiously and equitably returned to the states.

2.6 RECENT DEVELOPMENTS IN FINANCING KENTUCKY HIGHWAYS

With the enactment of the 2000-02 Biennial Budget, the Commonwealth of Kentucky took a new policy direction in its financing of road construction. The Biennial Highway Construction Program, as approved by the General Assembly, contained state projects for which the estimated costs exceeded the Road Fund appropriations provided by more than $400 million. The Appropriations Act (House Bill 502) contains a provision entitled "Pre-financing Road Projects," which directs the Kentucky Secretary of Transportation to implement a program to initiate and complete the projects in the plan. To make this feasible, the budget bill suspends certain Kentucky statutes that set out financial management policies and procedures for government agencies. The budget provision states that the Secretary may "concurrently advance" all the projects (including those effectively unfunded via the appropriations) by using unspent project and fund balances that are available. During consideration of the biennial budget by the legislature, the Transportation Cabinet reported that it was carrying unspent balances of approximately $600 million in the Road Fund.

The authorization of this "pre-financing" approach, combined with the expanded use of the federal Advance Construction program, brings Kentucky's potential cash flow program to a total in excess of $800 million by the end of the biennium on June 30, 2002. Transportation Cabinet officials have stated that this cash flow initiative would allow the Commonwealth to advance projects of this scale on a "one-time basis," after which the agency must continually manage its revenues and expenditures in a much more concise manner. Therefore, the Cabinet is implementing a complex new project cost forecasting and tracking process. This process and the management systems to support it are being designed to allow road projects to be commenced on a schedule and in a manner so that the future expenditures do not exceed the enacted appropriations, as required in House Bill 502. Cabinet officials are expecting the Road Fund cash balances to decline dramatically under this program.

2.7 FEDERAL INITIATIVES IN FINANCING INFRASTRUCTURE

Federal innovative finance initiatives are relatively new when viewed in the context of the history of the federal highway program. The US government's grants-based program of supporting surface transportation investment began in 1916. The program was significantly refined in 1957 with the establishment of the Highway Trust Fund, into which federal fuel taxes were deposited, and from which formula-driven allocations were made to the states. But only in the past decade, beginning with the passage of the

Intermodal Surface Transportation Efficiency Act (ISTEA), has the federal government officially embraced "new funding techniques that complement and enhance the existing grant-reimbursement program by leveraging additional capital investments in transportation infrastructure".[2] From its beginnings in ISTEA, the innovative finance program has been steadily expanded, first by President Clinton's Executive Order 12893 (issued in 1994), then by the National Highway System (NHS) Designation Act of 1995, and most recently by the Transportation Equity Act for the 21st Century (TEA-21).

2.8 PURPOSE OF FEDERAL INNOVATIONS

The purpose of the USDOT's innovative finance initiative, according to the department's finance program guide, is to respond to the limitations in conventional public funding. It states that shortfalls have become evident as the growing demand for transportation investment has outpaced available public funding. The program is designed to address this situation by:

- Fostering public-private partnerships
- Drawing on the public's willingness to pay direct user charges for transportation benefits and services
- Leveraging new sources of capital
- Enabling facilities to be developed more quickly and at less cost than under conventional public procurement and ownership

Although the stated purpose of the federal innovative finance program is clear, further examination of the issues and restraints surrounding the program is useful. Two finance officials with the Federal Highway Administration published an article in 1998 that provides insight into how the program is designed to work and why it has been more successful in some areas than in others.[3] They note that congressional budget scoring rules have had prominent impacts on the development and use of the various tools in the innovative finance "toolbox." While they admit that budget scorekeeping has been effective in balancing the federal budget, they observe that the scoring tends to favor short-term budgetary impacts over long-term policy goals. They refer to this effect in their article as the budget-scoring "tail" wagging the transportation policy "dog."

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[2] FHWA Office of Legislation and Strategic Planning Financing Federal-Aid Highways, Appendix N, August 1999.

[3] Grote, Bryan and Seltzer, David, "Budget Scoring, Highway Projects, and Innovative Finance – How the Tail Wags the Dog", TR News, p. 15, September –October 1998.

The authors also explain that the various types of innovative financing tools can be categorized into three general categories of incentives. They note that each category is affected differently by the restraints of budget scoring:

- Expanding regulatory incentives
- Pursuing tax incentives
- Encouraging alternative spending incentives

2.9 REGULATORY INCENTIVES

Many of the earliest initiatives in innovative transportation finance fit the category of expanded regulatory incentives. These programs frequently involved administrative adjustments, which granted the states more flexibility in meeting the states' federal-aid reimbursement matching requirements. While these tools did little to leverage new funds, they did improve grants management for the states. Also, because they had no discernable budget impact, they were attractive to federal policy makers.

2.10 TAX INCENTIVES

Tax incentives are designed to encourage the investment of private funds in certain places or types of projects. While they do not result in increased expenditures by the government, such changes to Internal Revenue Service rules create and often involve tax expenditures and foster federal tax revenue losses. For example, any expansion of the allowable use of tax-exempt municipal bonds would create a loss in income tax receipts for the federal government and would represent a tax expenditure. From a state perspective, these incentives are scored harshly for budget purposes by the Office for Management and Budget (OMB) because only the lost tax revenue is scored, without any offset for benefits generated by the encouraged investment. A Senate program called HIPA (Highway Infrastructure Privatization Act), which would have allowed some $15 billion of tax-exempt debt for public-private roads apparently fell victim to scoring and was deleted from TEA-21. As for effectiveness, the authors conclude that tax incentives are more helpful than regulatory incentives. However, they lack effectiveness in inducing investment by the private sector. For example, a 1988 federal program aimed at encouraging high-speed rail development is one that, despite offering the tax-exempt subsidy, had not generated any projects in 10 years.

2.11 SPENDING INCENTIVE

The programs in the third category, federal spending incentives, are considered to be the most direct and effective way of inducing investment in projects. Actually, the basic federal-aid program is such an incentive; however, that program's leveraging ratio is quite low, requiring only a non-federal match of 10-25%. Federal transportation policy makers have more recently adopted initiatives that return much greater co-investment for each dollar from the federal budget. The two most well known programs in this category are State Infrastructure Banks (SIBs) and Direct Federal Credit Programs.

The SIBs, which are state-run revolving loan programs, began in 1995 and were originally allowed to be capitalized with Federal-aid funds. A 1997 report to Congress found that the SIBs could produce a four-to-one leveraging impact, producing four dollars of project investment for each public dollar contributed.[4] However, an aggressive budget scoring methodology resulted in restraints on the annual application of SIB resources, reducing their effectiveness. Those scoring the budget impacts determined that SIBs would increase the volume of tax-exempt debt. Some observers have argued that just the opposite would be true – that SIB loans would reduce the need for project sponsors to access the municipal bond market. Such disagreements have punctuated the evolution of SIBs and other mechanisms aimed at increasing investment in transportation projects.

In the area of direct federal credit, the TIFIA (Transportation Infrastructure Finance and Innovation Act) program is the best known. Although limited to large projects, TIFIA received a more favorable budget scoring treatment and has been quickly employed on approximately a dozen high profile projects. The technique has achieved remarkable leveraging ratios because the budget monitors chose to score only the "subsidy cost" of the federally backed credit instruments. This cost basically represents the default risk assigned to the projects, and although the risk varies by project, the program's rules assure relatively low risk. The result has been leveraging ratios of 30-to-1 and more on TIFIA credit assistance spending. Given Kentucky's current transportation funding situation, the following chapters describe innovative funding options, which could be used to enhance Kentucky's finance options.

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[4] An Evaluation of the US Department of Transportation State Infrastructure Bank Pilot Program, (USDOT Report to Congress, February 28, 1997), Available on FHWA web site at http://www.fhwa.dot.gov/innovativefinance/contoc.htm

CHAPTER 3: TEST AND EVALUATION PROJECT 045 (TE-045)

The TE-045 program is an FHWA initiative that began in April 1994 with the stated purpose of introducing new flexibility into the federal-aid highway program. In October 1996, the FHWA released a report that described and evaluated the program entitled "An Evaluation of the TE-045 Innovative Finance Research Initiative." According to the report, the objectives of this program were to increase investment, accelerate projects, improve the utility of existing financing opportunities, and lay the groundwork for long-term programmatic changes. These ends were to be achieved through a state-driven process and without the commitment of new federal funds. Eight major financing tools were proposed and tested during the two-year period (See Table 3). They fall in to two general categories – either investment tools or cash flow tools.

Table 3. TE-045 Program Financing Tools

Investment Tools	*Cash Flow Tools*
Flexible Match*	Post-ISTEA Advance Construction*
Title 23, Section 129 Project Loans (expanded interpretation)*	Partial Conversion of Advance Construction*
ISTEA Section 1044 Toll Credits (expanded interpretation)*	Phased Funding
Reimbursement of Bond Financing Costs*	Tapered Match

*NOTE: Asterisked techniques have been approved as standard features of the Federal-aid program, either by law (National Highway System Designation Act of 1995) or by administrative action.

Source: Federal Highway Administration "An Evaluation of the TE-045 Innovative Finance Research Initiative" October 1996.

The most popular innovative financing concepts were found to be advance construction and flexible match. Both of these techniques were viewed as allowing states to address immediate cash flow needs or to avoid using their own funds for matching federal funds. The report notes that states exhibited less interest in the other investment tools. However, in summarizing the benefits of the innovations, the authors conclude that all of the program's concepts produced significant benefits, including increased

investment levels, accelerated project delivery, attraction of new sources of capital, and assistance to states in administering their programs.

3.1 HOW TE-045 TOOLS WORK

The following table, Table 4, displays information from the FHWA which explains how each of the TE-045 innovations modified traditional highway project funding. It also provides a brief description of how the tools are applied.

Table 4. TE-045 Impacts on the Federal-Aid Highway Program

TE-045 *Tool*	**Before: Conventional Federal-Aid Program** *After: Impact of TE-045 Financing Innovation*
Flexible Match	**Before:** Private and certain local contributions to highway projects come off the top of total project cost, with the standard Federal-State matching ratio (usually 80%-20%) being maintained on the balance of project costs. This means that the State must still provide matching funds no matter how large the contribution by the private entity. **After:** The value of private and certain local contributions directly offsets the State share. As a result, it is possible for a private contribution to entirely satisfy the non-Federal matching requirement. Because the benefits of private contributions accrue wholly to the State, flexible match can increase a State's incentive to actively seek private partners.
Section 129 Loans	**Before:** Section 1012(a) of ISTEA amended Section 129 of Title 23 of the U.S. Code to permit States to obtain Federal reimbursement for loans they make to toll projects. ISTEA Section 1012 placed restrictions on the terms of the loans and eligible uses of loan repayments. **After:** States may initiate reimbursable loans to any project with a dedicated revenue stream (i.e., not necessarily tolls). Other flexibilities related to loan terms and institutional arrangements also expand the utility of Section 129 loans.

ISTEA Section 1044 Toll Credits	**Before:** Section 1044 of ISTEA permits States to apply the value of certain highway expenditures funded with toll revenues toward the required State match on current Federal-aid projects. States may only substitute toll credits for state match if they demonstrate a "maintenance of effort" (MOE). The MOE test requires that a state's prior-year highway spending equaled or exceeded the average of the previous three years' expenditures. **After:** The MOE requirement is relaxed such that states may offset State match with Section 1044 toll credits so long as they meet the test prospectively -- e.g., anticipated current-year expenditures meet an average of the three previous years' expenditure levels. States may elect to have the MOE test extend as much as one year into the future. In addition, credits earned in prior years no longer lapse.
Reimbursement of Bond Financing Costs	**Before:** Federal-aid funds may be used to reimburse the cost of retiring the principal component of project debt for certain projects. Interest, issuance, and administrative costs are not eligible for Federal reimbursement, except for interest costs on Interstate construction projects. **After:** Interest, issuance, and administrative costs are now eligible for reimbursement, in addition to principal payments.
Post-ISTEA Advance Construction	**Before:** Under advance construction states may use state and local funds to construct projects while still preserving those projects' eligibility for future federal-aid reimbursement. However, all conversions to federal-aid must be made by the end of the ISTEA authorization period. **After:** Reimbursement of advance construction expenditures may extend into the next authorization period, assuming that Federal-aid apportionments continue beyond the end of the ISTEA authorization period. States must limit their use of advance construction to their unobligated balance of apportioned funding and three years of anticipated funding.

Partial Conversion of Advance Construction	**Before:** When projects are converted from advance construction, a State DOT must obligate the entire cost of the project at once, regardless of the expected pattern of actual expenditures and resulting Federal reimbursement. **After:** States may obligate funds for advance construction projects in a phased fashion, such that amounts obligated approximate the amounts actually expended. No federal funds are committed until their obligation.
Phased Funding	**Before:** States must obligate the entire cost of a project all at once, regardless of how many years it will take for the project to the project to be constructed and thus translate into expenditures. **After:** States may obligate funds over time, such that amounts obligated approximate the amounts actually expended. Federal funds are committed to the project, subject to availability of contract authority.
Tapered Match	**Before:** A standard matching ratio must be maintained throughout the life of a project's construction. Every voucher a state submits for Federal reimbursement must be limited to a set percentage (usually 80 percent) of the actual expenses incurred by the state. **After:** The matching ratio is permitted to vary over time. Federal reimbursement of state expenditures can be as high as 100% in the early phases of a project, so long as by the time the project is complete, the overall Federal contribution does not exceed the Federal-aid limit.
STP Simplification	**Before:** All individual Federal-aid projects must be approved, administered, and tracked separately. **After:** States may bundle together individual projects to be funded through the Surface Transportation Program. In this way, numerous projects may be treated as a single project for the purposes of approval and administration.

Source: Federal Highway Administration "An Evaluation of the TE-045 Innovative Finance Research Initiative" October 1996.

The TE-045 Research Program remains open and the FHWA continues to invite states or other project sponsors to submit proposals for innovative financing approaches through their respective division offices. Such submittals are to include a brief description of the project, a detailed description of the innovative finance mechanism that is proposed, and a summary of the benefits that would be provided.

3.2 HOW OTHERS HAVE USED TE-045 TOOLS

According to the FHWA, as of September 1999, the TE-045 program had supported 98 projects in 24 states with a total construction value of over $7 billion.[5] As previously mentioned, most of these projects involved state efforts to accelerate their projects by maximizing their cash flows and to decrease their need to use their own funds to match federal funds. Some of the techniques also had the impact of attracting additional funds to the projects from local, private, and other sources. More than $1 billion in such funds were leveraged and most of these monies were involved in two large projects located in Texas and California. The Texas project combined a Section 129 loan with other innovations to improve the affordability of the debt-financing package associated with the project. The California project applied multiple innovations to enhance bond issuance with federal reimbursement of the debt funding costs a centerpiece in the deal.

Recent projects initiated through the TE-045 program include one requested by the Indiana Department of Transportation. Indiana had already completed a portion of its Capital Avenue Corridor project in South Bend using local contributions and toll revenues. The DOT applied for and received approval from the FHWA to consider these prior contributions as matching funds for the remaining phases of the construction. This initiative is allowing Indiana to complete the project with 100 percent federal aid, thereby advancing the work considerably ahead of the timetable that had been contemplated.

Another TE-045 initiative involved the state of Washington, which proposed and was permitted to use the present value of future federal-aid revenues as an up-front payment on the long-term lease on its Transportation Operations Center. Instead of receiving the federal fund support on an annual basis and applying these payments to the lease, the state was able to reduce its overall cost for the lease.

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[5] Financing Federal-Aid Highways (FHWA, Office of Legislation and Strategic Planning) Appendix N, August 1999.

3.3 STEPS TO EMPLOY TE-045 METHODS

Seven of the eight different tools that have been made available to states through the FHWA's Test and Evaluation Project 045 are relatively straightforward to apply. The one that is potentially more complex is the Section 129 Loan Program, which will be dealt with separately in the section which follows. For the other seven, a state transportation agency need only review the applicable portion of Title 23 for the investment or cash flow tool under consideration and then contact the division administrator for guidance on the physical steps or documentation required. These techniques are, for the most part, implemented through the existing procedures and financial systems that are in place for virtually all federal-aid projects. In most cases, they simply represent variations on matching share requirements, eligible project costs, or in the timing of federal reimbursements in relation to the state's expenditures on the projects.

Using the Section 129 Loan Provisions

The Section 129 Loan Program is significantly different in that it allows states to loan out their federal-aid funds to public agencies or private firms for projects that produce a stream of revenues. In most cases, this would be a toll road; however, the law also provides for the identification of revenue streams dedicated to non-toll projects, such as tax revenues or fees. The use of this option brings in the added challenges of debt issuance, although the states are effectively taking debt rather than selling debt, as is the case with a conventional bond issue. Additionally, state officials should realize that the funds representing repayments of the loaned federal funds are still restricted to use on projects that would otherwise be eligible for federal-aid.

In reviewing other states' experiences with this technique, it was noted that the states that have utilized this tool are also those with a state infrastructure bank, thereby drawing upon their experience in making loans through their SIBs. However, it is not required that a state have a SIB in order to use the Section 129 Loan provisions in Title 23. The types of project sponsors that have benefited from this technique have generally been state or local toll authorities, which have often combined the loan of federal aid funds from the state with other debt financing, such as conventional tax-exempt bonds. Given the complexities of these financial packages, state governments have relied heavily upon bond underwriting firms or other financial advisors to design and implement these programs.

3.4 BARRIERS AND OPPORTUNITIES FOR KENTUCKY PROJECTS

The Commonwealth can make use of many of the innovations that have come out of the TE-045 Program. For example, Kentucky could use the program options that reduce the state's need to provide a cash-matching share for every dollar it receives in federal-aid funds. Rather than pay the normal "hard match" of 10 or 20 percent, Kentucky could use various types of "soft match" or "in-kind" contribution to meet its federal funds matching requirements. Among this set of possible state match sources or approaches are toll credits, flexible match, and tapered match. This can free up a substantial amount of state funds for uses other than meeting the matching requirements on federal-aid projects. This study has not identified any barriers to the Transportation Cabinet's use of the soft match provisions in federal law, other than some increased internal administrative effort to apply for the credits and to also track the state's use of them – both of which will require coordination with federal officials.

Potential Benefits of Soft Match Programs to Kentucky

It should be clarified that the use of these state match options does not create additional revenues. Rather, they provide added flexibility for the state in how it applies the limited state resources it has available for matching purposes. For instance, the state's 20 percent share on an $800,000 federal bridge project would normally be $160,000. If Kentucky officials determine they wish to make the project 100 percent federally-funded by using soft match, they would submit the project to the FHWA at a total of $1 million. Then, the required match of $200,000 would need to be made up of "soft match" from one or more of the TE-045 programs. Under the Flexible Match Program, the value of right-of-way donated to the project by a local government could be applied. Toll credits could also be used, and sometimes, federal funds from other federal agencies may be counted. Once $200,000 in soft match is approved, the project can be constructed using only the $800,000 of FHWA funds. The end result is that $160,000 of state funds are "saved," but they are replaced by the $160,000 of federal obligation authority that is consumed in the process. While there is no net change in the total resources available, the state has gained flexibility in that the state funds may be used for any lawful non-federal match highway expenditure, such as state projects or even maintenance needs.

As for the amounts of soft match potentially available, based on a review of the latest guidance from the USDOT[6] it appears that the

[6] Horne, Dwight A., FHWA Policy Memorandum "Toll Credit for Non-Federal Share" dated August 7, 1998. Available on FHWA website at http://www.fhwa.dot.gov/////tea21/tollcred.htm

Commonwealth could potentially be eligible for Section 1044 toll credits equal to the amount of toll facility receipts collected by the Commonwealth since FY 1992. Although these amounts are subject to a "maintenance of effort" test and may be reduced by the costs of toll collection, the state may be entitled to credits in the range of $100 million. If the Commonwealth applied for and received approval for these toll credits, it could apply these credits as "soft match" on many future federal-aid projects and, potentially convert hundreds of millions of dollars in projects to 100% federal funds. The amount of state funds that could be redirected to more flexible uses would be approximately 80 percent of the approved toll credit amount. The only type of federal highway project not eligible for toll credits is emergency relief (ER) projects.

Toll credits may also be used on mass transit projects, so the state could also potentially conserve its General Fund resources, which are used to provide the match on capital projects for local transit systems. Additionally, since local governments supply a portion of the required match on many of these projects, the Commonwealth could also reduce those jurisdictions' outlays for this purpose. As local authorities are often strapped for revenues to pay day-to-day operating expenses for their bus systems, the ability to convert their capital purchases to 100% federal resources may be a very positive financial development for them.

Kentucky's Use of Section 129 Loans

The Commonwealth's decision-makers may wish to consider the 129 Loan Program as they attempt to bring to the table other resources that could become available as the result of projects being advanced. Although the state appears to be moving away from toll roads, they should not be routinely dismissed as officials look for potential funding streams to repay a loan of federal funds. Even if tolls are eliminated from consideration, the motoring public might accept other taxes or fees, such as those that could be imposed at the local level, if they result in the advanced delivery of roadway improvements. Of course, as these new funds repay the loan, this leveraging effect allows the state to construct other projects that would not have otherwise been possible.

It is recommended that state officials conduct a thorough review of the Kentucky Revised Statutes to determine if statutory changes would be required in order for the Commonwealth to loan out its federal funds. It appears likely that some modifications to existing law would be advisable, if only to set clear parameters for the operation of such a program. Another loan-making mechanism, the state infrastructure bank, is discussed elsewhere in this report and it, too, appears to require specific legal authority from the legislative branch in order to function properly. If state officials feel

that a state-sponsored loan program would benefit transportation projects in the Commonwealth, it may be appropriate for Kentucky to address both programs, and perhaps others in the innovative finance toolbox, in an omnibus innovative transportation finance act.

CHAPTER 4: STATE INFRASTRUCTURE BANKS (SIBs)

State infrastructure banks (SIBs) are state-run revolving funds that make loans, provide credit enhancements, and offer other forms of non-grant assistance to surface transportation projects. These entities are intended to complement the traditional federal-aid highway and transit programs by supporting projects that can benefit from borrowed capital. Then, as loans are repaid, a SIB's initial capital is replenished, and the SIB can recycle these funds to support more projects. The resulting multiplication of available funds for projects is commonly referred to as "leveraging."

Federally sanctioned SIBs were first authorized by Congress through the National Highway System (NHS) Designation Act of 1995. The Act established a 10-state pilot program and allowed the participating states to "capitalize," (make the initial deposits into) their SIBs using a portion of their federal highway or transit grants from fiscal years 1996 and 1997, along with a minimum 20 percent state matching share. States could channel up to 10 percent of their total Federal aid apportionments for highways and transit into a SIB.

Fifteen states submitted applications to participate in the pilot SIB initiative and the following ten were selected:

- Arizona
- California
- Florida
- Missouri
- Ohio
- Oklahoma
- Oregon
- South Carolina
- Texas
- Virginia

Most of the original pilot project states experienced problems or delays in gearing up their programs and making their first loans. Several of the initial participant states found that their existing statutes were too restrictive and sought legislative amendments to facilitate SIB utilization. Virtually all of the SIBs were slowly capitalized due, in part, to the restrictions of the federal Act. This low funding rate caused most of the banks to limit their activity to small projects. The Act also limited a SIB's choice of projects. For example, when the capitalization source was federal grants, only projects that could meet all the requirements for regular federal aid grants could utilize SIB funding. Finally, direct loans were virtually the

only form of assistance provided in the first years of the program. This was not unexpected, as the SIBs could not offer credit enhancements or issue bonds in excess of their liquid assets until they received an investment grade rating from the rating agencies. Lacking both experience and a credit history, such a rating was effectively unattainable at this early stage of the SIB program.

The 1997 Appropriations Act for the U.S. Department of Transportation expanded this experimental program to allow additional states to participate and provided $150 million in funding to assist the states in capitalizing their SIBs. During these first years of the program, some 38 states and Puerto Rico were approved to set up infrastructure banks. According to the FHWA, as of August 2000, 31 of these states have entered into 162 loan agreements, which have a total dollar value of $765.6 million.

The federal government's involvement in the State Infrastructure Bank program was slowed with the enactment of the Transportation Equity Act for the 21st Century (TEA-21). TEA-21 limited additional capitalization of SIBs, using federal aid, to only four states. During fiscal years 1998 through 2003, covered by the Act, only California, Florida, Missouri, and Rhode Island may direct their federal grant funds to their SIBs. The remaining participants are still allowed to operate their SIBs under the NHS Act, but any funding for further capitalization must come from non-federal sources. Several of the states are still actively expanding their banks using state and local funds. The advantage of using state and local funds to capitalize a SIB is that potential projects need not conform to the requirements of federal aid projects. Of course, the disadvantage of this approach is that most states utilize their state funds for system maintenance and day-to-day operations, while depending on federal funds to support construction programs. As SIBs are a construction financing tool, most states prefer that funding come from the same funding source.

In the next section of this chapter, the experiences of some states that have successfully implemented State Infrastructure Banks are examined. In addition, the types of projects they have been funded with SIBs are reviewed.

4.1 HOW OTHER STATES HAVE USED SIBs

State infrastructure banks have been the most widely utilized innovative transportation financing approach examined in this study. Thirty-one states had such entities in place as of August 2000. Table 5 summarizes the use of SIBs by the states.

Table 5: State Infrastructure Bank Loan Agreements by State

State	*Number of Agreements*	*Loan Agreement Amount ($000)*	*Disbursements to Date*
Alaska	1	$2,737	$0
Arizona	8	168,956	66,779
Arkansas	1	20	0
Colorado	2	400	400
Delaware	1	6,000	6,000
Florida	15	219,184	30,542
Indiana	1	3,000	0
Iowa	1	739	739
Maine	22	1,768	759
Michigan	22	16,444	12,174
Minnesota	2	21,560	10,532
Missouri	8	56,008	41,770
Nebraska	1	1,500	0
New Mexico	1	541	541
New York	1	125	125
North Carolina	1	1,575	1,575
North Dakota	2	3,565	*1,565
Ohio	25	112,965	58,855
Oregon	4	5,960	5,735
Pennsylvania	8	6,103	393
Puerto Rico	1	15,000	15,000
Rhode Island	1	1,311	1,311
South Dakota	1	992	992
Tennessee	1	1,875	0
Texas	19	49,789	39,338
Utah	1	2,888	2,888
Vermont	3	1,030	0
Virginia	1	18,000	18,000
Washington	1	700	0
Wisconsin	2	1,188	1,188
Wyoming	4	43,681	**22,928
TOTALS	162	$765,604	$340,129

* North Dakota has repaid $1,376 of first loan.
** Wyoming has repaid $13,000 of first loan.
Note: Table reflects data reported to FHWA as of August 15, 2000.

Source: Federal Highway Administration, *Innovative Finance Quarterly*, Volume 6 Number 2.

It is clear from Table 5 that Arizona, Florida and Ohio have been three of the most aggressive states in their use of the SIB concept. Not surprisingly, all of these states participated in the original 10-state pilot project authorized by the NHS Act of 1995. However, Maine, Michigan and Texas have very active programs as well. Of this group, only Texas participated in the original pilot. Looking forward, only Florida of these six leading SIB users is authorized, under TEA-21, to continue the use of federal

funds bank capitalization. At this point, it appears that infrastructure banks have become well-entrenched as financing options for state and local governments, whether or not the federal government continues to participate in providing seed money.

This study reviews two of the longest established SIBs as case studies of how these financing mechanisms evolved and how states have utilized them to supplement their transportation infrastructure funds. The case study states, Ohio and Arizona, have infrastructure banks with well-defined objectives, policies and procedures in place, and have a considerable number of projects underway.

Ohio State Infrastructure Bank

The Ohio Department of Transportation (ODOT) developed its SIB as a component of ACCESS OHIO, which is the agency's long-range, statewide multi-modal transportation plan. The program was authorized by the Ohio State Legislature in 1996 and was initially capitalized with $30 million in state funds and $60 million in Federal Title 23 highway funds. The SIB was authorized to provide direct loans or issue bonds to support highway, transit, aviation, rail, and intermodal facilities. Funds from repayments of loans are again made available for projects in the usual revolving loan program manner.

The mission of the Ohio SIB is to *"be used as a method of funding highway, rail, transit, intermodal, and other transportation facilities and projects which produce revenue to amortize debt while contributing to the connectivity of Ohio's transportation system and further the goals such as corridor completion, economic development, competitiveness in a global economy, and quality of life."* The department's Office of Economic Development is the contact point for information about the SIB, and receives, reviews and makes recommendations regarding loan applications to ODOT's Executive Funds Management Committee.

The Ohio State Infrastructure Bank has established a set of program policies and guidelines, which clearly spell out the operation of the loan fund and the types of projects that may be eligible for SIB funds.[7] Department of The major Ohio guidelines and rules are shown in Table 6 as follows:

[7] Ohio Department of Transportation Web site http: www.dot.state.oh.us/sib1

Table 6: Ohio State Infrastructure Bank Loan/Bond Program Policies and Guidelines

I.	Eligible Borrowers	Any public entity, or any private or non-profit firm with a government sponsor
II.	Eligible Projects	Highway, transit projects eligible for Title 23 Federal funds; other projects, such as aviation, rail, intermodal, may be considered for funding from non-federal sources
III.	Interest Rate	Basic rate is ¾ of the stated prime rate, but may increase or decrease based on revenue coverage, security, etc.
IV.	Term	Based on life of the asset financed; maximum 25 years
V.	Collateral/ Security	May include pledge of revenues, guarantees from borrowers, first mortgage/lien on assets, equity participation, operational covenants, and/or credit enhancements
VI.	Safeguards during Construction	Guaranteed fixed price contracts, inspections by ODOT, draw-down documentation
VII.	Loan Fees	Closing costs of approx. 1%, annual admin. fee of ¼ of 1%
VIII.	Bond Fees	Closing costs of approx. 2-3%, annual admin. fee of ¼ of 1%, annual trustee fee of 1/20 of 1%
IX.	Repayment Schedule	Normally level debt service; however, payments may be deferred or ramped up, and interest may be capitalized during construction
X.	Prevailing Wage	Must be used in all projects receiving assistance
XI.	Criteria for Application Evaluation	• Ability to repay • Management of project • Working capital/operating funds • Need/public benefit • Collateral • Project status as to construction startup

Source: Ohio Department of Transportation, State Infrastructure Web Site http://www.dot.state.oh.us/sib1

Arizona HELP Program

Like Ohio, Arizona moved quickly upon being named one of the 10 pilot states to authorize a State Infrastructure Bank under the 1995 NHS Act. In fact, the Arizona Department of Transportation (ADOT) began its program under its existing statutes. However, in 1998, comprehensive state legislation was enacted which established the state's SIB as the Highway Expansion and Extension Loan Program (HELP). The HELP Fund was initially capitalized with federal highway funds up to the maximum amount allowed under the NHS Act, along with the required state-matching share. This resulted in approximately $50 million being made available for the bank. Two pilot loans utilized this initial funding in 1998.

In 1999, the HELP initiative received a major financial boost with the passage of legislation that greatly expanded the loan funds available to support transportation projects. This legislation, filed as Senate Bill 1201, enhanced the funding levels for HELP through a combination of direct

appropriations, additional state highway dollars, and the creation of a new innovation called Board Funding Obligations (BFOs). The State Transportation Board was permitted to issue up to $300 million of BFOs, which are to be purchased by the State Treasurer. This approach has the dual benefit of providing substantial capital to the SIB program and allowing the Treasurer to invest state funds at market interest rates. The first BFO issue of $100 million was authorized in October 1999 and will fund loans to advance urban freeway projects in Maricopa County. Additional obligations are currently planned for 2001 and 2004.

Senate Bill 1201 also authorized a loan of $20 million to HELP from the State Highway Fund in Fiscal Year 2000. That loan is to be repaid by December 2008. The bill also provided for direct appropriations from the state General Fund in the amounts of $20 million per year in Fiscal Years 2001 through 2003. Over the next eight-year period, it is estimated that this total capitalization of $380 million will result in approximately $600 million in short-term loans for Arizona highway projects. Table 7 specifies the loans that Arizona's infrastructure bank had issued or was pending as of August 2000.

Table 7: Arizona State Infrastructure Bank Highway Expansion and Extension Loan Program (HELP) Loan Status As Of August 2000

Project Sponsor	Purpose Of Loan	Project Location	Loan Approval Date	Interest Rate	Maximum Loan Amount	Final Maturity	Draws To Date
City Of Mesa	New Construction -Urban Freeway System	Red Mountain Freeway: Country Club to Gilbert	3/20/98	4.41%	$24,000,000	10/31/01	$3,526,665.00
City Of Chandler	New Construction -Urban Freeway System	Price Freeway: Warner to Frye	3/20/98	3.59%	$26,000,000	7/31/02	$25,893,991
ADOT	Purchase of Right-of-way for Urban Freeway System	Various: as stipulated in Senate Bill 1201	11/15/99	3.92%	$100,000,000	6/30/01	$60,507,834
City Of Tucson	Street Improvements	6th Avenue: 19th Street to I-10	3/17/00	4.50%	$2,000,000	1/1/05	$2,000,000
Town Of Chino Valley	Construction	Widen approach to Center St. and install traffic signal	3/17/00	4.50%	$300,000	1/1/05	$300,000
ADOT	Reconstruction	SR260: Pinetop to Show Low	2/18/00	*To be Determined	$5,664,000	10/1/01	0
ADOT	Design, Right-of-Way	Various projects state wide	5/19/00	*To be Determined	$5,707,000	2001	0
ADOT	Design, Right-of-Way	Various projects in Pima County	5/19/00	*To be Determined	$5,285,000	2001	0
City Of Sierra Vista	Construction	Buffalo Soldier Trail 7th St. to SR 90 Bypass	7/21/00	*To be Determined	$1,970,000	2002	0
City Of Tucson	Construction	4th Avenue Underpass	Pending	*To be Determined	$10,422,000	2005	0
City Of Phoenix	Construction	SR51 completion: Union Hills - L101	Pending	*To be Determined	$17,000,000	2005	0

*The State Transportation Board will determine the interest rate when the first construction draw is made.

Source: Arizona Department of Transportation Highway Expansion and Extension Loan Program Web Site
http://www.dot.state.az.us/about/fms/help/help.htm

4.2 STEPS TO ESTABLISH AND USE A SIB

As noted, of the innovative transportation financing options discussed in this report, the State Infrastructure Bank is the one most frequently used by the states. There are numerous variations in the application of this financing concept as well as considerable information available regarding the approaches that have worked well. Drawing on the experiences of the 30 plus states that have established and successfully operated SIBs, some basic procedural steps on setting up and operating SIBs can be identified.

The US Department of Transportation issued a "State Infrastructure Bank Primer" in September 1997. That publication provided detailed guidance on how states could set up SIBs that would meet the then-current requirements for eligibility for capitalization using federal-aid funds. Of course, with the changes brought about through TEA-21, only four states are currently eligible to use their federal grants to provide working capital for their SIBs to lend. Despite this restriction, a state considering establishment of a state-funded SIB may still decide to follow the federal recommendations, as this limitation seems likely to be reconsidered by Congress at some point. The current four-state authorization is defined as a pilot project, indicating Congress could expand it. State transportation officials, through their national association AASHTO (American Association of State Highway and Transportation Officials) are already on record supporting this change. General adherence to the previous federal guidance would help make a new SIB eligible for federal capitalization should the current laws be amended to permit it once again.

The SIB Primer lays out the following outline or "roadmap to implementation" of a bank, which will be further discussed in the following sections of this report:

- Program Development
  - Institutional location and structure
  - Financial issues
  - Managerial details
- Program Implementation
  - Enabling legislation
  - Federal cooperative agreements
  - Outreach
  - Project screening
  - Advance capitalization
  - Project selection
  - Leverage/debt issuance (optional)
  - Project loans/commitments

SIB Program Development

The decision as to where an infrastructure bank will be located is often determined by the organizational structure of the entity. In most states, the SIB is a part of the state department of transportation, but it is important that, whatever agency is chosen as the physical home, both the financial and program management expertise necessary for successful operation be available. Sometimes these skills can be contributed by multiple agencies -- for instance, with the transportation staff providing the project-related services and the state's finance department coordinating the fiscal issues. Another important matter to be decided is the composition of an oversight board to set policies and priorities for the bank in a manner consistent with state transportation goals.

The two principal financial issues to be considered are: 1) the potential sources of capitalization of the SIB, and 2) if and how the bank will use "leveraging." With the prohibition against further capitalization of SIBs with federal funds (except in the four states named in TEA-21), most states are left with determining which state funds might be used to capitalize its SIB. Potential sources are state highway or economic development funds. If revolving funds already exist that can be used for transportation purposes, such resources could be reassigned to a new SIB.

The concept of "leveraging" can imply two things relative to SIBs. First, leveraging is realized when a SIB attracts additional funding sources such as local government taxes and fees, private entity participation, or project generated revenues. Second, a SIB can leverage itself by issuing bonds to generate funds that would then be loaned for projects. Such borrowings allow a bank to offer more capital than it could support from conventional capitalization. Moreover, such capital can be acquired sooner than would be the case if the SIB had to wait for loan repayments to generate more funds to support SIBs.

The managerial details that a state establishes for its SIB are critical to an effective, sustainable program. The careful management of the funds the bank has to work with, which is known as the corpus (literally, the "body" of funds), cannot be understated.

SIB Program Implementation

After a state settles on the overall design of its SIB, officials turn to the more pragmatic challenges of implementation. The first challenge, for most states, involves the enactment of a statute creating a bank and establishing the clear legal authority for the bank. Even if current law is deemed to only need modification to permit the operation of a bank, it is important to conduct a thorough review of all statutes and regulations that might contain barriers to the intended operation of the SIB.

As mentioned, the implementation outline above is drawn from pre-TEA-21 guidelines for SIB establishment. Under TEA-21, some of this guidance no longer applies, as is the case for the implementation step of "Cooperative Agreements." These agreements were required in order for a SIB to be capitalized with federal grants. The agreements laid out the structure of the SIB, along with its policies and procedures. The agreements also provide USDOT assurances as to how the contributed funds would be handled.

The implementation step is an important one as it publicizes the services of the SIB and informs the public and decision makers about the program and its benefits. Such an educational effort should identify desired projects, prevent applications regarding projects that do not meet minimum criteria, and can assist in getting the political support for legislation that will be needed to fully implement a SIB program. A secondary impact will be to educate transportation or other state agency staff as to the SIB's potential to enhance their efforts.

Project screening should be done based on general eligibility guidelines that examine a number of project attributes. Examples of some broad considerations are:

- Does the project meet SIB guidelines?
- Is the project sponsor eligible to receive SIB assistance?
- What is the strength of revenues projected for repayment processes?
- Is the project consistent with state and local transportation plans?
- Will the project reduce the need for conventional state expenditures?

Determining the initial capitalization of a SIB is also an important step, and one that must consider a broad range of issues, such as:

- Estimated costs of first rounds of projects
- Estimated costs and timings of future projects
- Types of assistance to be provided (loans, credit enhancements, etc.)
- Available capitalization sources, competing demands for those funds
- Degree and types of leveraging contemplated

The SIB project selection process is an important activity that will be repeated again and again as the program goes forward. The initial project selection is an important exercise because it "sets the peg" for the bank and its future applicants. During the approval process, the projects are subjected to a more detailed review and it is recommended that this review be based on specific evaluation criteria. Most states have put selection committees in place and adopted a numerical scoring system for this exercise. While each state sets its criteria based on the goals it seeks to accomplish, the following are criteria that are frequently used:

- The transportation need which the project addresses
- The project's impact on public safety and mobility
- New funding sources being leveraged by the project
- How the project accelerates priority improvements
- The sponsor's financial and technical strengths
- The viability of the project's financing plan
- The status of the project (approvals, right-of-way, etc.)

Once a project has been selected for SIB assistance, the bank and the project sponsor must agree upon the form of the assistance. It is important that the SIB have basic standards and guidelines in place for setting out these terms. The considerations should include:

- Interest rate on loans
- Term of loan and frequency of payments
- Credit enhancement tools
- Penalties, events constituting default

The issue of leveraging is one that decision makers are not required to explore, as a SIB can operate without employing these techniques. Officials should consider them, however, because they have the potential to greatly increase the capacity of the bank to assist projects, particularly in the short term. Two general applications of leveraging involve the SIB issuing debt on its own behalf and guaranteeing project debt issued by sponsors or others,

which is more than the SIB's own cash. In deciding whether to apply these approaches, states need to consider such things as the demand for loans and the timing of those needs. Experience has shown that most states do not initially issue debt or provide credit enhancements through their SIBs, but allow for these more aggressive tools once the bank is better established. These approaches require the bank to have an established credit rating. At the same time, they may have an impact on that credit rating and as a result these ratings affect the cost of issuing debt, either for the SIB itself or the project entity whose debt the SIB is backing.

The final step in implementing the SIB is the signing of contracts or loan commitments with the project sponsors and the disbursement of funds. The documentation should carefully outline the structure of the assistance being provided, interest rates and repayment schedules, and any reporting, notification or other requirements that are placed on any of the parties.

4.3 BARRIERS AND OPPORTUNITIES FOR SIBs IN KENTUCKY

There are two related steps for Kentucky to take before it can effectively use the State Infrastructure Bank financing technique. First, the Kentucky Transportation Cabinet, or similar agency, would have to gain approval of authorizing legislation by the Kentucky General Assembly. The second step would involve clarifying where funding would be drawn from to capitalize the bank. Such a clarification would normally be included in the authorizing legislation.

Although the funds used to capitalize the bank would be temporarily redirected from other potential projects, the SIB project funds will be eventually "recycled" and loaned again for additional projects after the loans are repaid. This leveraging effect is created as the result of new local government revenues, development fees, tolls, or private participation funds, which would supply the resources for the SIB loan repayment.

Kentucky decision makers may wish to consider the creation of a state infrastructure bank that would encompass existing revolving loan funds that relate to transportation. For instance, an Airport Loan Fund already exists and is operated by the Transportation Cabinet. A similar fund could be established for mass transit projects, water transportation projects, and/or rail projects. By combining the administration of these loan funds under one administrative body, management, procedures and accounting could be improved, and the costs of operating each of them could be reduced. Because of the impacts these projects have on economic development in the state, there may also be an opportunity to partner with the Kentucky Cabinet for

Economic Development to generate funding and stimulate interest among potential project sponsors.

Although the establishment of a SIB by the Commonwealth appears to be a complex undertaking, the mechanism will provide an added funding option that can benefit certain transportation projects. This technique, like most of those discussed in this report, requires project advocates to think in creative new ways to generate funding for the infrastructure improvements they wish to see realized. Other states have found that the more financing options that are available, the greater the chance for developing a funding approach that will be successful.

CHAPTER 5: GRANT ANTICIPATION REVENUE VEHICLES (GARVEEs)

Grant Anticipation Revenue Vehicles (GARVEEs) and FRANs (Federal Reimbursement Anticipation Notes) are specialized debt instruments that are used to finance transportation infrastructure projects. They are simply bonds issued to generate construction funds for transportation projects that are secured and repaid by future federal grants. In the terminology of the municipal bond industry, they fall under a more general bond category known as GANs (Grant Anticipation Notes). The major difference between these two types of GAN variations is whether their source of security is considered "direct" or "indirect." If the connection between the bonds, the projects financed, and the federal reimbursements is closely established and sanctioned by the USDOT, the bonds may be considered GARVEEs. On the other hand, if the debt, the projects and the repayment stream are only generally tied together, then the bonds are usually sold as FRANs or GANs. Either financing approach can provide resources for states or other government desiring to accelerate transportation system improvements.

5.1 HOW GARVEES AND FRANS WORK

The GARVEE financing tool evolved from a U.S. Department of Transportation program that allows states to pledge their future federal aid funds to pay debt service on bonds issued for surface transportation projects. GARVEE bonds were authorized by the 1995 NHS Act and may be used for either highway or transit projects. In these "direct" GANs, projects must receive advance approval from the FHWA and the bond proceeds are restricted to the approved projects. Also, the debt service payments are made directly from federal funds.

The indirect GANs, or FRANs, may support either federal or state projects, do not require advance federal approval of the individual projects, and the debt service is paid from the state's overall federal aid reimbursement, rather than through a specifically programmed project. While this financing approach appears to offer more state flexibility, there are disadvantages and potential challenges associated with this financing innovation. These advantages and limitations are discussed later in this chapter.

The first states to utilize these financing mechanisms were Ohio, Massachusetts, and New Mexico, which brought bond issues totaling nearly $800 million to market during 1998. The three states structured their programs in very different ways. Both Ohio and New Mexico employed the direct GAN method by programming or "locking in" the debt service payments on a project-specific basis with the FHWA and in their long-range

transportation plans. Massachusetts utilized the indirect route by providing for future debt service payments from the state's aggregate federal aid reimbursement pool. All three states list future federal reimbursements as the primary security for the bonds, but they differ on the alternative or "backstop" sources of repayment which would be used if federal funds are not sufficient to meet debt service obligations. Ohio and Massachusetts indicate that state appropriations will be sought if federal funds are not sufficient. Meanwhile, New Mexico's GARVEEs have no back up to federal aid funds for debt service payments. Despite the differences, all of these issues were well received by the rating agencies and bond markets, receiving relatively high ratings and attractive interest costs.

As of August 2000, four other states had issued their first GANs to support highway projects – Arizona, Arkansas, Colorado, and Mississippi. Several other states had received or were pursuing the authority to issue debt backed by federal aid highway funds. Oklahoma's Governor signed legislation in June 2000 that authorizes up to $700 million of GANs. California is preparing guidelines for project selection to use bonding authority provided by its Legislature in its most recent session. According to the FHWA, the states of Alabama, Florida, Nevada, and Oklahoma also have authority to issue GARVEEs, and Alaska, Texas and Virginia are considering or seeking legislative approval to issue them.

Although the preceding discussion has centered on FRANs or GARVEEs to support highway projects, the GAN approach may also be used to fund transit projects and vehicles. The authority for transit agencies to issue debt that is repaid with formula grants from the federal government has actually existed since 1982 under the Surface Transportation Uniform Relocation and Rehabilitation Act (STURRA). While many transit systems used grant funding as one source of repayment for their revenue bonds, none had issued debt backed primarily by federal aid until recently. In 1998, New Jersey sold $151.5 million of Certificates of Participation (COPs) that are backed solely by future Federal Transit Administration (FTA) formula funding. COPs are a lease-purchase GAN variation, wherein the lender, or certificate holder, owns the right to receive a portion of the lease payments. Via this program, the New Jersey Transit Corporation purchased 500 new buses for its fleet.

The earmarking of federal transit funds for debt service can also introduce some more intricate considerations based on the nature of the project and the category of the grants. Approximately two-thirds of federal transit funding is apportioned by formula and one-third is allocated on a discretionary basis. Two major categories of grants are involved. Section 5307 funds are distributed via a formula based on population and transit characteristics and divided between urban and non-urban areas. The funds

may be used to purchase buses, trains, ferries, vans, and support equipment. The other category is Section 5309, in which grants come in three areas – fixed guide way modernization, buses, and fixed guide way new starts. The modernization dollars are distributed on a formula basis, while the bus and new starts funding are discretionary. Congress may earmark them in the authorization acts or in annual appropriation bills, so no state or transit system is guaranteed a specific share of the total.

The new starts projects are normally supported by a Full Funding Grant Agreement (FFGA), which is a statement by the FTA of its intention to support a project, up to a specified amount. However, the agreements are still subject to annual appropriations and the fulfillment of FTA requirements. They must also meet FTA priorities. Because of the uncertain nature of projects supported by these discretionary funds, any GANs issued with this source of repayment are viewed as inherently more risky than those having formula funds as the backing. Therefore, issuers have often employed secondary pledges or other types of credit enhancement to make such offerings more marketable.

5.2 HOW OTHER STATES HAVE USED GARVEEs/FRANs/GANs

In examining the experiences of other states in the use of Grant Anticipation Revenue Vehicles (GARVEEs) and Grant Anticipation Notes (GANs), this study reviewed the first three states to undertake this financing approach (Ohio, Massachusetts, and New Mexico), plus another state that followed approximately one year later – Mississippi. The Mississippi experience is viewed as somewhat more applicable to Kentucky as Mississippi is also a southern and principally rural state. Furthermore, the program funded by their GANs is a multiple-project initiative, whereas the other three programs involved funding of a major single project or corridor. Finally, there is a review of New Jersey's transit GAN initiative, which was employed to fund a light rail project being developed under the federal new starts program.

Ohio Infrastructure Revenue Bonds

The State of Ohio issued $70 million of revenue bonds in May 1998 for the completion of the Spring-Sandusky Interstate 670 Corridor Project in Columbus. The project is estimated to cost $116 million and is scheduled to open in 2002. The bonds are secured by a pledge of the state's federal-aid highway receipts, along with additional funding, if needed, from the state motor fuel tax receipts and through regular legislative appropriations. The pledge is executed through agreements between the Director of ODOT and

the State Treasurer, and is for two-year terms corresponding with the state's biennial budget periods.

The Ohio GANs were well received by the market and the rating agencies. The bonds received ratings of Aa3 by Moody's, AA- by Standard and Poor's, and AA- by Fitch. In their reviews of the deal, the agencies pointed to a strong debt service coverage ratio and strong timing provisions. They noted that although the bonds go out roughly 10 years to 2007, the federal authorizing legislation (TEA-21) had just been enacted and provided a reasonably assured funding stream for at least the first six years. The structure also provides that the federal dollars will be set aside a full year in advance. Should the amount available be insufficient, the department is required to transfer any other available funds and seek appropriations from the State Legislature.

Massachusetts Federal Highway GANs

The Commonwealth of Massachusetts was authorized by its State Legislature in 1997 to issue up to $1.5 billion in notes backed by future FHWA reimbursements for the purpose of funding a portion of the Boston Central Artery project, known as "The Big Dig." This large and highly publicized project involves the construction of several harbor tunnels and the underground relocation of a major interstate highway through the downtown area. The entire project, which is expected to be completed in 2004, has been projected to exceed $13 billion in total costs.[8] The Commonwealth sold the first series of these notes, some $550 million, in June 2000. The bonds begin to amortize the principal in December 2005 and final mature in 2015.

The note program's authorizing legislation set up a specific mechanism and process for channeling the federal funds directly to the debt payments. The law requires the deposit, by the State Treasurer, of all such highway reimbursements into a Note Trust Fund within two days of receipt. These funds are then applied to the debt service requirements without need for appropriation by the legislature. The law also provides a backup methodology whereby alternate revenues, defined as 10 cents of the state's 21-cents-per-gallon gasoline tax, will be deposited in the trust fund in the event of funding reductions in the federal program on a nationwide basis, or if Massachusetts' own funding level provides less than 120% coverage of aggregate debt service. Covenants also preclude the state from diverting the 10 cents for other purposes or taking action to reduce the tax.

The bond rating agencies have taken considerable comfort in the structure of the Commonwealth's GAN program and appear to have

[8] "Central Artery Project Assessment," Deloitte & Touche, August 6, 2000.

confidence that funding from the Federal Highway Trust Fund will continue for many years to come, with Massachusetts receiving its equitable share. Moody's rated the notes Aa3, which is the same as the firm's rating for the state's general obligation debt. Fitch provided a rating of AA, which was in fact higher than its GO rating of AA- for the state as a whole. The Duff & Phelps Credit Rating Company agreed, placing a rating of AAA, and stating "Overall, the legal and structural factors that are present in this financing provide bondholders with a credit that is significantly more secure than that of the Commonwealth alone."

New Mexico GARVEE Bonds

The grant anticipation note program undertaken by the New Mexico Finance Authority is structurally different from the Ohio and Massachusetts programs previously described. New Mexico's GANs are solely securitized by the stream of federal aid reimbursement payments from the FHWA, without a backup pledge from a state revenue source. Their initial issuance of these GARVEEs took place in September 1998 when just over $100 million in bonds were sold. The final maturity on these bonds is September 2015. New Mexico contemplates a total of $295 million in parity debt being issued through three offerings.

The funds will be used to construct improvements to some 123 miles of highway known as Corridor 44, which is located in the northwest portion of the state and is part of the National Highway System (NHS). For the most part, the work will widen the highway from two lanes to four lanes. The project is to be designed, managed, constructed, and warranted by a private contractor, Mesa PDC Limited, which was selected through an RFP process. The estimated cost of the project is $270 million, with warranty payments of $60 million included. This contracting approach is also considered to be innovative and the FHWA provided special approval to the concepts.

The bond rating agencies issued somewhat lower debt ratings for the New Mexico issues than they assigned to both the Ohio and the Massachusetts bonds. For instance, Moody's Investors Service gave an underlying rating of A3, described as an "upper-medium-grade" in their opinion.[9] This compares to the firm's rating on the other two states' offerings of Aa3. Similarly, Standard and Poor's assigned a rating of A- to the New Mexico deal, while tagging the Ohio bonds with an AA- (S&P did not rate the Massachusetts issue).[10] The rating agencies cited risks associated with the stand-alone nature of the federal aid payment pledges, potential changes to, or delays in, reauthorization of TEA-21 or the Highway Trust Fund's

[9] "New Issue Report," 8/25/98, Moody's Investors Service.
[10] "Standard and Poor's CreditWeek Municipal" 9/14/98 and 5/4/98.

revenues, and the lack of a debt service reserve. However, offsetting strengths in the issue structure were also listed, such as high levels of debt service coverage, strong historical precedent for the continuation of the federal program, and the fact that bond insurance from a well-rated insurer was provided.

Mississippi Four-Lane Highway Program Bonds

The State of Mississippi was authorized by its Legislature in 1987 to develop a network of four-lane highways to connect various parts of the state to the interstate and primary road systems. This ambitious 12-year initiative involves the construction or reconstruction of more than 1,700 miles of roadway at a total estimated cost of approximately $4 billion. Mississippi originally issued $200 million in General Obligation Notes for this program in 1998. Then, in 1999, the state adopted the grant anticipation financing approach and refunded the GO notes by issuing $200 million of Four Lane Highway Program Bonds.

The new bonds have a final maturity of June 1, 2009, which is approximately six years shorter than either the Massachusetts or New Mexico bonds. The debt is secured by three pledges including: 1) all reimbursements from the FHWA for the four-lane projects, 2) several different state taxes and fees, and 3) all other legally available federal payments for highways. The state taxes and fees include a dedicated portion of the motor fuels tax, the vehicle tag fees, the lubricating oil tax, and a contractor's tax. State law provides that the State Treasurer shall make transfers, without the need for legislative appropriation, from the dedicated revenues so that payments are made and a debt service reserve is maintained. The law also covenants that no additional parity debt to the bonds will be issued and no action will be taken by the state to repeal or impair the revenues that secure the bonds.

The rating agencies responded to the strong provisions that Mississippi placed into its GANs by assigning high quality ratings to the 1999 Bonds. Moody's rating was Aa1,[11] and both Standard and Poor's and Fitch IBCA issued their top ratings of AAA.[12][13] As with the previously described GANs sold by the other three states, the relative predictability and stability of the federal-aid program was seen as a key factor in the agency ratings. Moreover, the analysts reviewing this issue pointed to the strong and diverse stream of pledged revenues, the prohibition against additional parity debt, and sizable debt service coverage ratios, even under downside scenarios as additional credit strengths.

[11] "New Issue Report," 7/14/99, Moody's Investors Service.
[12] "Standard and Poor's CreditWeek Municipal," 6/28/99.
[13] "Revenue New Issue," 6/16/99, Fitch IBCA.

5.3 STEPS TO ISSUE GARVEEs, FRANs OR GANs

The legal basis for Grant Anticipation Revenue Vehicles came first in Section 311 of the NHS Act of 1995 and was later permanently codified in Section 122 of Title 23. These provisions made costs related to highway bonds and other debt instruments eligible for federal-aid reimbursement. The Federal Highway Administration originally issued implementing guidance for the program on May 17, 1996. The most current guidelines were published on August 18, 2000 in a memorandum to Division Administrators from FHWA Director of Administration Michael Vecchietti. This guidance is available on the Innovative Finance Web Site at:
http://www.fhwa.dot.gov/innovativefinance/garvee.htm

Considerations in Choosing GARVEEs/FRANs

Before deciding to utilize this type of debt financing (GARVEEs or FRANs), there are several important questions that should be asked. Among the questions, which should be addressed to financial advisors and bond counsel, are the following:

- Is the timing correct for such an offering?
- Does the state have the legal authority to issue this type of debt?
- What will be the impact on the state's bond capacity?
- What will be the effect on the state's debt rating?
- How will such an issue be viewed by the debt market?
- How should the debt instrument be structured?

Once the decision is made to proceed with this form of financing, there are several standard steps involved in authorizing and approving GARVEE or GAN debt instruments.

Authorizing Legislation

All of the eight states that had issued some type of GARVEE or GAN debt for highway construction purposes as of October 2000 had enacted specific state statutes to authorize their programs. Most of these laws set limits on the amount of bonds that could be sold and provided very concise directives as to the handling of the federal funds that serve as the security for the issue. Some of these bills also established back-up security, usually from state tax receipts, for the bond payments. These provisions are important in determining how the bond rating agencies and the market will react to the offering.

It is important to note that the authorization and ultimate responsibility for debt issued under these programs are state responsibilities. The federal requirements for the GARVEE program are not concerned with state authority to issue the debt. In fact, FHWA states that "… FHWA approves only the project to be debt-financed in order to receive debt service reimbursements, not the bond issue which is under state authority." [14] Further, FHWA indicates that the USDOT's approval of the eligibility of debt costs for federal-aid does not constitute a "commitment, guarantee, or other obligation" of the United States Government to provide payments.

GARVEE Federal Project Approval

Debt financed projects must be approved by the FHWA Division Office in order to have debt-related costs paid by federal funds through Section 122 of Title 23. A precursor to this approval is that the project must be included in the Statewide Transportation Improvement Plan (STIP) with all of the debt-related costs (such as principle and interest, costs of issuance, and trustee fees) included. The STIP should be structured so that the federal reimbursements are displayed in the amounts and the years they will be required as indicated by the debt financing plan. Projects must be approved as an Advance Construction (AC) project under the provisions of Section 115 of Title 23. Placing these projects in the AC designation ensures that their eligibility for reimbursements is preserved for future years. The conversion of AC can be accomplished by periodic payments or by a lump-sum payment.

Future reimbursements for virtually all federal funding categories are eligible for application to the GARVEE program. Of course, like other federal-aid projects, all submitted projects must also meet the Clean Air Act Amendments of 1990 and transportation conformity regulations. Projects that are eligible for participation under the sections mentioned above are those that qualify for funding under the following federal categories:

- Interstate System
- National Highway System
- Congestion Mitigation and Air Quality Improvement
- Surface Transportation
- Bridge
- Planning
- Research

[14] FHWA, "*Garvee Bond Guidance*," August 2000. Available on FHWA website at http://www.fhwa.dot.gov/////////innovationvefinance/garguid1.htm

GARVEE bond-financed projects are, of course, subject to the same maximum federal share limits contained in Section 120 of Title 23, as are other federal-aid projects. For most categories, this federal share is 80 percent, except for interstate projects where the federal share limit is 90 percent. There is some flexibility in the way a state may provide its matching share, including the use of soft match (see TE-045 information in this study). Another allowable variation is for the state to use pay-as-you-go for its share of the project and finance only the federal share through bonds.

Process for FRANs

The process for using indirect, non-GARVEE, federal reimbursement anticipation notes is simpler as federal approval of projects, debt costs and debt schedules becomes moot. The projects do not have to be federal-aid projects. This is because the direct connection between the stream of federal payments and the bonds is only the "securitizing" connection provided by the state's authorizing legislation and the bond documents. It might be argued that FRANs are a variation of "standard" state highway bonds. The variation being that the bonds has a "non-standard" source of security – future federal receipts.

It should be noted that the future federal payments pledged for debt service are, in reality, reimbursements of project costs already incurred by the state and paid with state funds. Therefore, to the extent that these reimbursements are diverted to pay debt service on FRANs, the cost of those federal projects will have been shifted to state funds. It seems that, at least indirectly, the cost of the bond payments still falls upon the state's highway fund source. The potential advantage of this structure is that these debt instruments may be perceived by the bond market as having a broader source of repayment than bonds backed solely by state funds. This view could well result in lower interest rates on the offering and reduced borrowing costs.

5.4 BARRIERS AND OPPORTUNITIES FOR KENTUCKY'S USE OF GARVEEs/FRANs

The decision to utilize GARVEEs or FRAN financing should be made in the context of an overall state debt management plan. Kentucky's plan is developed and monitored by the Office of Financial Management (OFM) of the Finance and Administration Cabinet. Under the provisions of KRS Chapter 42, the OFM publishes a "Capital Financing Analysis" as part of the biennial budget document. This analysis specifies the goals of Kentucky's debt management plan, an overview of debt issuance in the state, and historical information about the status of the Kentucky's outstanding debt.[15] In addition, the analysis describes indicators of acceptable debt levels based on an assessment of debt service as a percent of state revenue and related information.

Currently, all appropriation supported debt service is compared to available revenues in the General Fund, Road Fund, and Agency Funds in percentage terms. This comparison is considered proper, as these funds are the major sources of revenue supporting the state's outstanding bonds. The current debt capacity policy is that appropriation supported debt service should not exceed 6% of available revenue from the three major sources. However, in the case of a GARVEE/FRAN bond issue, the primary, if not the sole source of repayment is Kentucky's stream of federal-aid reimbursements. Therefore, it may be proper to broaden the revenue sources included in the Commonwealth's debt capacity calculation to include these federal funds. If these funds are added, Kentucky's debt capacity could be expanded. In any case, the implications of GARVEE/FRAN financing should be reviewed relative to current state debt management policy.

Transportation officials and other state decision makers should also carefully consider other positive and negative aspects of financing projects via bond issuance. One of the most significant drawbacks is that future discretionary use of the revenue stream dedicated to the repayment of the bonds is effectively eliminated. This is why the advanced delivery of a project, which is gained through borrowing, should yield benefits that outweigh both the costs of the borrowing and the loss in future flexibility. Such benefits can be identified and may include:

- Avoidance of inflationary cost increases
- Safety benefits of the project
- Convenience benefits of the project

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[15] 2000-2002 Budget of the Commonwealth, Budget in Brief, KY Office of State Budget Director, 2000

- Increased economic development opportunities
- Economic stimulation generated by the construction phase of the project
- Additional taxes generated by the economic stimulus

Concern regarding the loss of future flexibility may also be mitigated if there is agreement that the funds dedicated to debt service are being used for the same project or group of projects to which they would have been applied with a pay-as-you-go funding policy. In Kentucky, this approach may have merit in several areas of the federal-aid program. For instance, under TEA-21, a sizeable future funding stream has been "earmarked" for use only on the Appalachian Development (APD) Highway System. In the Commonwealth, this funding is specifically restricted to a limited group of projects in the eastern part of the state. Given that the use of these future grants has been largely pre-determined by Congress, the use of GARVEE bonds to deliver them on an accelerated schedule may be an appropriate application of this new financing technique. There are other areas of the federal aid program that are, potentially, suited to this form of financing. Among the possibilities are the Commonwealth's efforts to six-lane its most congested interstate routes and to replace or rehabilitate some of the state's primary route bridges.

Kentucky officials may wish to consider combining a GARVEE program with other innovative financing tools to make the technique more workable or effective. One possible combination would be to use the "soft match" of Toll Credits (discussed in Chapter 3) to cover the state match requirement for a GARVEE-financed project. This could effectively convert the project to 100% federal funds and reduce the demand for state Road Fund monies, which would otherwise be increased by the acceleration of the GARVEE project. There are numerous ways to combine innovative financing methods and the FHWA has indicated its willingness to work with states to explore these options.[16]

Kentucky will probably require authorizing legislation to utilize GARVEE or FRAN financing. If the Commonwealth's policy makers decide to utilize these financing options, it would be useful to consult with officials in states that have experience in implementing these programs. This will help identify the potential stumbling blocks and pick up strategies to keep borrowing costs as low as possible. It is further recommended that the Commonwealth draw on the experience of both internal (Finance and Administration Cabinet) and external financial advisors in designing a GARVEE/FRAN program that is consistent with Kentucky's debt

[16] Werner, Frederick, "USDOT 2000 Innovative Finance Presentation", June 200.

management policies and meet Kentucky's transportation system financing needs.

CHAPTER 6: TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION ACT (TIFIA)

The Transportation Infrastructure Finance and Innovation Act (TIFIA) of 1998 provides federal credit assistance to major transportation investments of critical national importance. The types of projects targeted include major highway trade corridors, intermodal facilities, and transit and passenger rail facilities with regional and national benefits. The program is designed to fill market gaps and leverage substantial co-investment from the private sector by providing supplemental and subordinate capital. The Federal credit assistance that may be applied is limited to one-third of an eligible project's total cost.

6.1 HOW STATES HAVE EMPLOYED TIFIA

The TIFIA program is the newest federal innovative finance option available to the states. While the least utilized of the federal innovative programs, the scale of the projects which have utilized FIFIA financing has raised its' profile among the states. The first five approved TIFIA projects were announced by U.S. Transportation Secretary Rodney Slater on September 27, 1999. These projects had total costs of $6.5 billion and received credit assistance authorization of $1.6 billion. The USDOT announcement of the projects pointed out that the cost of this credit assistance to the federal government was only $61 million.[17]

The USDOT received and evaluated the second round of TIFIA applications during the summer of 2000. They processed 15 letters of interest and six applications for the approximate $1.8 billion in credit assistance authorized. On September 26, 2000, Secretary Slater announced that three projects, located in the states of New York, South Carolina, and Washington, had been selected to receive some $638 million in credit assistance. The total cost of these projects is estimated to be slightly less than $2 billion.[18]

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[17] USDOT News Release "U.S. Transportation Secretary Slater Provides $1.6 Billion in Innovative Federal Financing for Five Critical Projects of $6.5 Billion" 9/27/99

[18] USDOT News Release "U.S. Transportation Secretary Slater Announces $637.8 Million in Innovative Federal Financing for Three Projects Totaling $1.95 Billion" 9/26/00.

6.2 HOW TIFIA CREDIT ASSISTANCE WORKS

Three distinct types of financial assistance are available through TIFIA:

1. **Direct federal loans with flexible repayment terms**

   TIFIA loans provide financing during the construction period as well as permanent financing.

2. **Loan guarantees**

   TIFIA federal government loan guarantees provide "credit Enhancements", which improve the credit rating and marketability of bond issues because they are backed by the full faith and credit of the United States government.

3. **Standby lines of credit**

   TIFIA lines of credit provide contingent federal loans to projects as a secondary source of funds during the first 10 years of project operations.

The types of TIFIA eligible projects include:

- Projects that are currently eligible for federal assistance through existing surface transportation programs (highway or transit capital projects).
- International bridges and tunnels.
- Inter-city passenger bus and rail facilities and vehicles.
- Publicly owned intermodal freight transfer facilities located on the National Highway System.

Project sponsors may be state departments of transportation, transit operators, special authorities, local governments, private firms, and consortia. Each project must meet certain threshold criteria to qualify, including the following:

1. The project must cost at least $100 million or one-half of the state's annual apportionment of federal aid funds, whichever is less. In the case of an Intelligent Transportation System (ITS) project, this threshold drops to $30 million.

2. The project must comply with various federal laws and regulations, such as NEPA (National Environmental Policy Act), and be included in an approved State Transportation Plan.

3. The debt repayment must be supported by a dedicated revenue stream and the project must receive an investment grade rating on its senior debt obligations before federal credit assistance will be provided.

Under the TIFIA legislation, Congress provided a total of $530 million over five fiscal years to cover the subsidy cost of the credit assistance. Annual caps are also set by the Act that limit the principal amount of the credit instruments to be issued to $10.6 billion (See Table 8).

Table 8: Annual Authorizations for TIFIA Credit Assistance ($ millions)

Fiscal Year	***1999***	***2000***	***2001***	***2002***	***2003***	***Totals***
Federal Funding	80	90	110	120	130	**530**
Maximum Principal Amount of Credit	1,600	1,800	2,200	2,400	2,600	**10,600**

Source: U.S. Department of Transportation TIFIA Program Guide, May 2000

Applications for TIFIA credit assistance are to be evaluated by the Secretary of Transportation on a competitive basis utilizing the following criteria:

- National or regional significance in terms of economic benefits or improvements to international competitiveness
- Use of public-private partnerships and the attraction of private capital
- Environmental benefits
- Project acceleration
- Creditworthiness
- Application of new technologies, such as ITS
- Amount of TIFIA budget authority required
- Reduction of federal grant assistance

The principle advantages of a TIFIA financing, according to the FHWA's Southern Resource Center[19] are:

[19] Werner, Frederick, "USDOT 2000 Innovative Finance Presentation," June 2000.

- Ability to accelerate projects
- Project sponsorship flexibility
- Ability to tailor the debt structure and repayment schedule
- Greater private sector participation due to federal guarantees

FHWA has indicated the following disadvantages of TIFIA initiatives:

- Costs related to debt financing
- The extended application and evaluation process associated with TIFIA
- Increased borrowing costs due to the taxable nature of TIFIA financing
- Project acceleration impacts on project management resources
- Capacity driven costs associated with consultants and project team participants

Star Route 125, San Diego, California

Star Route 125 is a 9.5-mile segment of a toll road, which connects San Diego with the U.S./Mexico Port of Entry border crossing at Otay Mesa. This project, a public-private partnership, is a $400 million highway which is being privately financed, designed, and constructed under a franchise agreement between the state of California and California Transportation Ventures (CTV). CTV is a private consortium whose investors include Parsons Brinckerhoff, Egis Projects, and Koch Industries. The toll road will be operated by CTV for 35 years, after which control reverts to the state's highway agency, known as Caltrans. The facility will use state-of-the-art electronic toll collection, employing the same toll tags that are readable by other California toll roads and bridges.

This highway is considered a missing link in San Diego's road network. In qualifying for credit assistance through TIFIA, the SR 125 project was judged to be of national significance as a critical transportation link to facilitate increasing freight and traffic volumes across the border. International commerce in this region has grown substantially in recent years as a result of the North American Free Trade Agreement (NAFTA). Moreover, projections for the corridor indicate heavy traffic volumes because of planned and approved land developments in this fast growing region. TIFIA credit assistance was provided to the project under two of the Act's three programs. The project has been provided a $90 million loan guarantee and a stand-by line of credit of $37 million.

Miami Intermodal Center, Miami, Florida

This Miami Intermodal Center (MIC) project is designed to serve as a central transfer point for users of a wide variety of transportation modes in

the Miami metropolitan area. Among the modes involved in this transfer point are commuter and heavy rail, the airport/seaport connector, buses, automobiles, bicycles, and foot traffic. The Center will also serve as an extension of the Miami International Airport (MIA) landside terminal function by providing airline ticketing, baggage claim, rental car and limousine services, and parking. The facility is projected to be completed by mid-2005 and the total estimated cost is $1.35 billion. Forecasts indicate that approximately 75,000 people per day will use the MIC.

The Miami Intermodal Center has a large number of partners involved in the development. The Florida Department of Transportation and the Miami-Dade Aviation Department are the principal sponsors of the project. Other participants in the cooperative venture are the US Department of Transportation, the Miami-Dade Transit Agency, and numerous private firms, such as airlines, rental car companies, and developers.

Key components of the MIC include:

- An automated people mover system, known as the MIC/MIA Connector, which links the airport terminal with the intermodal center, the rental car facilities, and planned development in the area;

- A consolidated rental car facility to accommodate up to 10,000 ready and return vehicles;

- A six-lane expressway to provide direct access to the airport and the intermodal center from the two major east-west expressways in the area; and

- Some 13.4 million square feet of joint development property, including space for privately operated office, retail, entertainment, hotel and meeting facilities, which will enhance travel demand and offset capital and operating costs at the MIC.

The Florida DOT submitted its applications and supporting documentation for TIFIA assistance in the summer of 1999 and was approved for $433 million in direct federal loans. The TIFIA selection committee recognized the MIC project as being of national significance in that it will support international commerce, improve environmental quality and enhance traveling safety for the public. It was also viewed as playing a key role in the economic development of the Miami area. The approved financings are actually two separate loans – one in the amount of $269 million, secured by state fuel tax revenues, and the other for $167 million, for the construction of the rental car facility and secured by the rental car fees.

Tren Urbano, San Juan, Puerto Rico

This project is a 17-kilometer rapid rail system, which will serve metropolitan San Juan and be closely integrated with the local bus system. This $1.676 billion project is expected to carry approximately 100,000 passengers per day in its first year of operation, which is projected to be in 2002. Tren Urbano is designed to eliminate automobile trips and, as a consequence, reduce air pollution. It has been estimated that about one-half of the projected riders would not have used mass transit if this new system were not developed.

Tren Urbano is being developed by the Puerto Rico Highway and Transportation Authority (PRHTA), which began working on the concept in 1989. The design of the system began in 1993 when the project was designated as one of four "turnkey" demonstration projects by the Federal Transit Administration (FTA). The turnkey innovation is one where the project is both developed and operated by a private entity. Puerto Rican officials signed a Full Funding Grant Agreement with the FTA in 1996 and awarded the turnkey contract for Phase I that same year. The total project funding package calls for, in addition to the TIFIA involvement, transit grants from the USDOT, special earmarked funds from Congress, and bond issues to provide the needed funding.

The TIFIA assistance approved for Tren Urbano involves a direct federal loan of $300 million. The source of repayment is a subordinate lien on the PRHTA's motor fuel tax receipts, vehicle registration fees, and transit fares. The USDOT, in approving the project, determined that it met the national significance test because it is the first and only heavy rail system in the U.S. to be originated under the turnkey approach, it will apply state-of-the-art technologies, and it will produce environmental benefits by increasing transit ridership and reducing highway congestion. Finally, it was cited as generating significant employment opportunities in Puerto Rico through both the construction and operation of the system.

Farley-Penn Station, New York, New York

The purpose of this project is to refurbish and expand the existing Pennsylvania Station complex, which is the nation's busiest Amtrak train station, by combining it with the nearby James A. Farley Post Office Building. The resulting structure will be a modern, intermodal transportation facility, combined with a major commercial center. The

project will expand the station's capacity by approximately 30%, double the space for passenger circulation, and provide a Manhattan terminal to accommodate high-speed rail service from between Washington and Boston. The complex has been designed to safely and efficiently handle New York's Amtrak, commuter rail, airport, subway, bus and taxi passengers well into the 21st Century.

The Farley-Penn Station Redevelopment project is projected to be completed by December 2003 at a cost of nearly $750 million. The undertaking is a cooperative venture between the federal, state, and city governments, the US Postal Service, and the Pennsylvania Station Redevelopment Corporation (PSRC). The PSRC is a not-for-profit subsidiary of New York's Empire State Development Corporation, which is the state's economic development agency.

The Penn Station project has been approved for two types of credit assistance through TIFIA. The PSRC will receive a $140 million direct federal loan and a $20 million line of credit. The source of repayments for both credit instruments is the lease income from the retail development in both the Farley Building and the existing Penn Station. The project has been recognized as having national significance as the busiest transportation facility in the nation, with over 500,000 passengers daily, serving approximately 40 percent of Amtrak's passengers nationwide. This ridership is expected to increase with the completion of the Northeast High Speed Rail Corridor, and completion of additional airport-transit links.

Washington Metro Capital Program, Washington, DC

The Washington Metro Area Transit Authority (WMATA) project is designed to accelerate the authority's 20-year Capital Improvement Program (CIP) on its 103-mile metrorail system and its metrobus system. The capital program, known as the Infrastructure Renewal Program, includes rehabilitating rail cars and buying new ones, buying bus fareboxes, installing escalator canopies, repairing escalators and elevators, and replacing radio systems.

The total cost for the long-range capital program is estimated at $2.324 billion. The authority has received a TIFIA loan guarantee of $600 million, which allows the WMATA to borrow up to this amount through financing, backed by the federal government. The security for these borrowings is the stream of payments pledged by the District of Columbia and various local governments in Virginia and Maryland to support the CIP, and revenues generated by the metro systems. The national significance of the project is the introduction and use of new technologies and the maintenance of environmental benefits.

Staten Island Ferries and Terminals, New York, New York

This project, which is estimated to cost $484.1 million, will replace three ferryboats that have been in use for 35 years, and rebuild both the Whitehall Ferry Terminal in Lower Manhattan and the St. George Terminal in Staten Island. Completion of the work is anticipated by the end of 2003.

The sponsoring organizations are New York City's Office of Management and Budget, Economic Development Corporation, and Department of Transportation, along with a special purpose, not-for-profit corporation known as TSASC, Inc. The corporation is authorized to issue debt to fund New York's capital program and repay the debt with a portion of the city's tobacco settlement revenues. The TIFIA loan will be secured by these revenues, and will reduce the planned bond program of TSASC and save the corporation substantial interest costs over the life of the loan.[20]

The national significance of this project is that the ferry provides service to some 60,000 commuters per day, including many US and foreign tourists who ride the ferry to enjoy the view of the Statue of Liberty, Governor's Island, and the New York skyline. It is noted that the ferry is now fare free for non-vehicle passengers, allowing its patrons to link seamlessly with the city transit system.

Cooper River Bridge, Charleston, South Carolina

This project will allow for the replacement of two structurally deficient bridges that connect Charleston and Mount Pleasant, South Carolina with a new 2.5-mile long bridge that is estimated to cost up to $650 million. The project, which spans the Cooper River, is slated for completion in 2006.

The project sponsor is the South Carolina Infrastructure Bank, while the South Carolina Department of Transportation will own and be in charge of construction and maintenance of the new bridge. The USDOT will provide a direct federal loan of up to $215 million through TIFIA, to be repaid with a junior pledge of the SIB revenues, which are primarily truck registration fees and repayments of prior loans made by the bank.

The Cooper River Bridge was judged to meet the national significance requirement because it will provide a vital link in the region's highway network, allowing travel to and from the Charleston historic district,

[20] New York City Press Release "Mayor Giuliani Announces City Awarded $153 Million Federal Loan for Staten Island Ferry Projects" 9/26/2000.

commercial and industrial port facilities, federal defense installations, and the employment, residential and recreational areas in the region.

Tacoma Narrows Bridge Project, Pierce County, Washington

This public-private project will address 3.4 miles of State Route 16 and the existing 50-year-old bridge over the Tacoma Narrows that is of substandard design and in need of seismic retrofitting. Congestion will be relieved on the existing road, which runs between the cities of Tacoma and Gig Harbor and is the only land link across Puget Sound. The improvements will add a new suspension bridge alongside the existing bridge, which will be reconfigured and upgraded. This project, when complete, will provide a new lane in each direction for the entire length of this important connector road.

The work will be conducted on a guaranteed fixed price, design-build basis and is estimated to cost $835 million. The Washington State Department of Transportation has contracted with United Infrastructure Washington (UIW) to develop and operate the bridge, which will be tolled one-way when it is completed in 2005. UIW is owned by Bechtel Enterprises, Inc., the largest engineering and construction firm in the U.S. The financing of the project is being provided by the Tacoma Narrows Bridge Nonprofit Corporation, which has the authority to issue revenue bonds and to control the toll rates on the bridge. The beginning toll is expected to be $3.00 for a round trip.

The TIFIA assistance being provided by the USDOT consists of a $240 million federal loan, plus a $30 million line of credit that is available during the project's first 10 years of operation. The non-profit corporation is expected to issue more than $500 million in tax-exempt debt to cover the majority of the construction costs. All of the project debt will be secured by the tolls collected on the bridge. The State of Washington has a relatively small investment in this project, having committed $50 million.

The Tacoma Narrows Project is considered to be of national significance because of its status as a single lifeline for passenger and freight movements between the Olympic and Kitsap Peninsulas and the Interstate 5 corridor. An NHS highway, SR16 also connects to important military installations and the Olympic National Park. The project was judged to be critical in easing congestion and improving safety of motorists using this route.

6.3 STEPS TO RECEIVE TIFIA ASSISTANCE

One of the first steps for state or other government officials considering the use of the Transportation Infrastructure Finance and Innovation Act program should be to obtain a copy of the USDOT publication "TIFIA Program Guide" dated May 2000. This guide contains a thorough explanation of the assistance available through the Act and extensive descriptions of the process for application, selection, and execution of a TIFIA project. This report only summarizes the general requirements and the procedures that a project must follow. The purpose is to assist readers in gaining a broad understanding of the program as they consider whether this particular innovative finance tool may have application to a specific project or projects.

TIFIA Eligibility Requirements

As mentioned in the opening descriptions of the TIFIA program, the credit assistance is available for highway, transit and rail projects that meet certain minimum dollar value thresholds. Beyond this, these projects must meet the same requirements that would make them eligible for "conventional" federal-aid grants for capital improvements. Among these requirements are the following:

- National Environmental Policy Act (NEPA)
- Civil Rights Act
- Uniform Relocation Assistance Act
- Highway design standards
- Procurement rules (DBE, Buy America, etc.)
- Labor rules (Davis-Bacon, etc.)

Assuming that the above restrictions can be complied with, there are a number of other requirements that must be met. The project must be included in the state transportation plan and the State Transportation Improvement Program (STIP). Public support for the project has to be demonstrable. Also, federal approval requires an "investment grade" credit rating on the project's senior debt by at least one nationally recognized bond rating agency. Directly related to meeting this key requirement, of course, is the financial strength of both the project and the sponsor. The project sponsor must be able to demonstrate relevant qualifications and experience and the financial wherewithal to assure the project's creditworthiness. At the same time, the cash flows or revenue stream to be produced by the project must be judged to be adequate to pay the debt service on the borrowings that finance the project. The overall financial feasibility of the proposal will have

to be confirmed early in the process, as the formal application for assistance must include a preliminary rating opinion letter from a rating agency.

TIFIA Application Process

The USDOT evaluates project sponsors' requests for assistance under an established schedule referred to as an "application cycle." For each cycle, the Department publishes a notice in the Federal Register which indicates when initial letters of interest and formal application packages are due. For example, the most recent application for Fiscal Year 2001Funding (Round Three) was published July 19, 2000. The deadlines for letters of interest and formal applications were August 17 and September 6, respectively. The first announcement of selections came on November 22, with more selections anticipated during the winter months. With the third round deadlines now past, officials should focus on the upcoming round for Fiscal Year 2002 funding. The USDOT has moved the application deadlines earlier in each round, and it is likely that those for the next round will also be earlier than those of Round Three.

The first step for applicants is the letter of interest should include:

- Project Description – purpose, basic design features, estimated cost, schedule for completion, status of environmental review
- Proposed Financing – sources and uses of funds, type of TIFIA credit assistance sought, revenues and security pledged to the debt
- Proposed Participants – organizational structure of sponsor, other significant participants, relationships to subsidiaries or affiliates

The DOT Credit Program Working Group will review the letter of interest to determine that basic eligibility requirements are met and then refer the project to the agency which deals with the mode of transportation that the project addresses (FHWA, FRA, FTA). The assigned contact person at the agency will notify the applicant to submit a formal application.

The formal application is a form provided by the DOT, which must be completed and submitted along with an initiation application fee. The fee is set for each application cycle and is non-refundable. The application form has six sections:

- Applicant contact information
- Applicant organizational structure and legal authority to pursue project
- Project description, status, costs and timeline, assistance requested
- Narrative explaining how project satisfies selection criteria
- Detailed plan of finance

- Certifications of compliance with TIFIA and other federal requirements

TIFIA Selection Process

The review process for formal application packages is performed by the assigned modal agency and involves screening the proposals for compliance with the various TIFIA requirements, such as meeting the cost parameters, being investment grade rated by a national bond rating agency, having a dedicated repayment source, and the like. After this initial review, the designated modal agency will arrange for applicants to make an oral presentation. Thereafter, the federal agency will calculate a preliminary estimate of the subsidy cost of the credit assistance, which represents the amount of the federal budget that the project will consume. Using all of this information, the designated agency will assess the strength of the application according to each of the eight selection criteria specified under the TIFIA law.

The assigned modal agency forwards its evaluations and scores back to the Working Group, which will rank the projects and prepare a recommendation for the award of specific amounts of TIFIA assistance. This recommendation is sent to the Steering Committee and the Secretary of Transportation, which makes the final decisions and notifies project sponsors of their selection and any conditions they must satisfy.

Contracts and Special Loan Issues

Two sections of the TIFIA Program Guide deal with the various documents that must be completed to finalize the DOT's provision of credit assistance. There are three major contracts that are used: a term sheet, a conditional term sheet (if required), and a credit agreement. These documents formalize the agreements between the USDOT, the project sponsor, and the lender regarding the credit assistance, covenants, representations, reporting requirements and other responsibilities, and procedures in the event of default. Of course, these legal contracts are complex and project sponsors will need to rely on their financial advisors to assist them in properly executing them.

6.4 BARRIERS AND OPPORTUNITIES FOR KENTUCKY PROJECTS

The Commonwealth may find opportunities to avail itself of the credit assistance offered in the TIFIA program; however, the nature of the program and the restrictions on the types of projects that are eligible have the effect of limiting the pool of potential projects. Three of TIFIA's basic criteria for

projects are that they must cost at least $100 million, be of national or regional significance, and have an identifiable revenue stream to support repayment of the planned debt. There appears to be only a few transportation projects on Kentucky's planning horizon that can comply with these requirements.

Two Ohio River bridges to serve the Louisville metropolitan area, along with improvements to connector roads, are currently in the preliminary design phases. Certainly, this project will meet the cost threshold and should meet the significance test required for TIFIA projects. The identification of a revenue stream, needed for a TIFIA project, has yet to be addressed for the Ohio River bridges. However, this task is within the scope of work assigned the multi-disciplinary team currently working with the project on behalf of the Kentucky Transportation Cabinet. This group is also charged with reviewing potential financing approaches for the project and is expected to explore the application of the TIFIA credit assistance tools.

Officials in the metropolitan areas of both Louisville and Cincinnati/Northern Kentucky are reviewing possible light rail systems as solutions to air pollution and traffic congestion problems in those areas. Louisville's mass transit agency, TARC (Transit Authority of River City), has underway a "Transportation Tomorrow" initiative, which is seeking New Starts funding from the Federal Transit Administration, and has identified revenue from numerous other potential sources to support its advanced rail transit program.

A major multi-modal transportation facility is being considered for the Bowling Green area, where the Warren County Fiscal Court has established the Intermodal Transportation Authority (ITA) to explore the potential of a facility that would combine air, rail and highway access with a high-tech business/industrial park to serve modern commerce. The facility is referred to as the Kentucky TriModal Transpark and has already received funding of $6 million from the state legislature to assist in the planning and feasibility studies for the proposal. This project may also be of the scope and significance required for TIFIA financing.

The projects mentioned above appear to satisfy at least the basic requirements for TIFIA assistance. However, projects must individually meet the multiple criteria of the TIFIA program in order to receive this type of credit assistance. This study did not attempt to undertake a detailed analysis of whether these projects meet all of the eligibility requirements. The descriptions of the program provided by this report and the examples of projects that have successfully gained TIFIA assistance are intended to provide project sponsors and other decision makers basic information which

they need to evaluate whether this particular innovative financing option should be pursued.

Finally, it appears that statutory revisions may not be required under certain project sponsorship arrangements. When the credit assistance is being provided to a non-state entity, such as the ITA mentioned above, it is likely that existing statutes may permit such a financing. Assuming that: 1) the debt issuer is not a part of state government, 2) that the debt is supported by a dedicated revenue stream, and 3) that the debt, itself, is not the traditional tax-exempt municipal debt can greatly simplify the Commonwealth's role and the applicability of the KRS. However, officials will need to carefully consider the state's contractual involvement in any project – particularly the provision of any backup credit or revenues – that might bring current legal provisions to bear. As has been encouraged throughout this report, officials should consult with financial advisors and bond attorneys who have experience with these financings to gain comfort that any contemplated actions are permitted.

CHAPTER 7: FUNDING PARTNERSHIPS

As public transportation agencies face increasing demands for service, and system maintenance, repairs, and improvements, government officials have begun to look beyond the "conventional" user fee approach to finance these needs. In contrast to traditional funding approaches, many jurisdictions are looking to the private sector to supplement the traditional public funding streams of fees and taxes. The private sector financing supplement innovations are usually referred to as "privatization" or "public-private partnerships."

Partnership funding scenarios for transportation projects can also involve multiple levels of governments. In recent years, state governments have joined with local governments to create Tax Increment Financing (TIF) approaches to fund needed infrastructure improvements. In fast growing areas, local governments have begun employing "development" or "impact fees" that seek to recoup the costs of providing all types of infrastructure to new housing or commercial developments from those who benefit from the development.

7.1 TYPES OF PARTNERSHIPS

A very wide variety of public-private partnerships are being explored, both in the U.S. and internationally. Four of the most common types of partnerships, which will be reviewed in this study, are:

- Private Toll Roads
- Tax Increment Financing
- 63-20 Corporations
- Shadow tolls

Private Toll Roads

The type of public-private partnership that has involved the largest expenditure of private capital for constructing public highways has been privately owned and operated toll roads. An examination of the successes and failures in this area was recently conducted by James T. Taylor, Managing Director of the Public-Private Ventures Group, Bear, Stearns and Company, Inc. He presented a resource paper at the August 2000 Transportation Research Board's National Conference of Transportation

Finance[21]. In his paper, Taylor reviewed eight different projects that involve extensive private capital commitment to a highway toll facility to attempt to identify common attributes. He reported the following:

- Contractors and developers are the types of companies willing to sponsor such projects because they are motivated by the need to secure work or generate development fees. However, these entities seem better suited to building the project, rather than operating it. To broaden the pool of potential sponsors, policymakers should increase development opportunities associated with projects and not make only those projects available that are seen to have toll financing as the last resort to have them constructed.

- The use of taxable versus tax-exempt debt is a complex determination and one that involves more than simply the cost of capitol. Internationally, taxable debt supports many major roads. The characteristics of the project are most important. For instance, if extensive right-of-way must be acquired, it may be very difficult to take property for the benefit of a for-profit firm. Also, traditional purchasers of corporate debt usually have a relatively short investment horizon, while the tax-exempt market is accustomed to long-term structures and the evaluation of the revenue streams associated with such a credit.

- Finally, Taylor notes that the investor view of toll roads often suffers from negative publicity about the few projects that have not met expectations, while news that a start-up internet firm is losing money does not generally lead people to conclude that similar companies are doomed. He prefers to point to the positive aspects that are evident in the private projects. He notes that private operators have done better than their public counterparts with integrating electronic toll collection systems, in marketing their facility and by focusing on customer service.

It should also be noted that public resistance to tolls, at least in some parts of the United States, appears to be waning. In particular, taxpayers seem to be willing to accept tolls when the alternative is a general increase in their taxes. A referendum was held in Miami-Dade County, Florida in July 1999 to allow voters to decide whether to replace tolls on five toll roads in South Florida with a one cent sales tax that would also be used for transit system improvements. The proposal was defeated by a 2-to-1 margin.

[21] Taylor, James. T., "The Role of the Private Sector in U.S. Transportation Finance". Resource paper presented to the Transportation Research Board National Conference on Transportation Finance, August 2000. Available on the TRB website at http://www.nas.edu/trb/publications/conferences/finance papers/Taylor.pdf

During the same period of time, the Orlando-Orange County Expressway Authority had a University of Florida professor conduct a phone survey to determine if people would rather pay tolls rather than raise taxes to pay for new highways.[22] The survey found that 60 percent of respondents favored tolls over increased taxes. It was noted that preference for tolls over taxes was even greater, at 66 percent, among those interviewed who were users of E-Pass, the authority's electronic toll payment system.

Other states are also beginning to use tolls, as a way to finance road projects that otherwise was not deemed feasible. South Carolina, for instance, is proceeding with the development of two toll facilities. In addition, citizens of New Jersey were polled as to their preference among a series of options to raise revenue for new transportation improvements, and the results revealed that tolls were the recommended choice.

Tax Increment Financing

The concept of Tax Increment Financing (TIF) for infrastructure projects is a relatively simple one and has been in use for nearly 50 years, having first been applied in California in 1952. The approach is based on the assumption that new or improved infrastructure, such as highways and water or sewer facilities, will result in increased economic activity, and therefore, increased tax receipts will be collected in the area of the improvement. A TIF works through the establishment, usually by the local government, of a Tax Increment District (TID) that encompasses the area anticipated to be benefited by the infrastructure project. The existing level of a certain tax or taxes is established at a fixed point against which future tax receipts shall be measured. Thereafter, any growth in those receipts, which is referred to as the "increment," is captured and some portion of it is dedicated to service the bonds sold to construct the project.

The most popular tax to be incremented and captured through a tax increment financing is the property tax. A new highway or an interchange on an existing highway usually opens property up for commercial or residential development, whereas it was most likely assessed and taxed at agricultural use values before. Of course, the developed property generates substantially more property tax receipts; hence, the amount of tax increment available can be significant. The increment need not be limited to only property tax. Local governments have the option of capturing increments from sales taxes, occupational taxes or business taxes in the TID, as well.

[22] Stratton, Jim, Orlando Sentinel, "Toll Roads Look Good When Option is Increasing Taxes" August 18, 1999.

63-20 Corporations

The innovative financing option known as 63-20 Corporations is actually the result of Internal Revenue Service (IRS) Revenue Ruling 63-20, which was made some 37 years ago. The ruling permits private, not-for-profit corporations to issue tax-exempt bonds that are used for public purposes, such as the construction of a government building. The technique has only recently been used for road projects, with the first two such projects, in South Carolina and Virginia, having begun in 1998. However, the tool appears to have promise as state and local governments' search for ways to harness the efficiencies of private sector involvement in projects and still retain the long-term financing savings that municipal bonds offer.

A key requirement of Revenue Ruling 63-20 is that the government entity must approve the establishment of the 63-20 corporation and the issuance of the bonds. And while the use of this technique allows a state to avoid the direct issuance of bonds, state officials should still consider the impact such bonds will have on the government's credit rating and other aspects of its debt management program.

Shadow Tolls

Shadow tolls are per-vehicle amounts paid to a transportation facility operator (usually a private firm) by a government entity, as opposed to conventional tolls that are directly paid by the users of the highway, bridge, or other facility. The sources of these payments may be quite diverse, including state highway funds, local governments, special assessment districts, or development fees. This approach allows a government to place the up-front financial responsibility on a private developer/operator of a facility and then compensate that firm over an extended concession or franchise period as the benefits of the project are realized. This concept of shadow tolls has been the subject of two FHWA-sponsored reports by Urs Greiner, Inc. in association with Public Financial Management, Inc.[23]

The Greiner reports identify the following reasons that shadow tolls may be useful to governments searching for project funding solutions:

- Some risks can be transferred to the developer/operator
- Facility use is not impaired by real tolls or toll increases

[23] FHWA reports, "The Selective Use of Shadow Tolls in the United States" and "The Applicability of Shadow Toll Concepts in the United States". Prepared by Urs Greiner, Inc. in association with Public Financial Management, Inc., 1998. Available on FHWA website at http://www.fhwa.dot.gov//////innovativefinance/shadtoll.htm

- Multiple revenue sources can be applied
- Project cost obligations of the government to build and operate the facility can be reasonably guaranteed up front

7.2 HOW OTHER STATES HAVE USED PARTNERSHIPS

A review of the public/private funding partnerships that have been undertaken around the U.S. reveals that the vast majority of them are found in areas experiencing rapid development in or near urban population centers. The accompanying arrival of additional vehicles and the resulting congestion creates a sudden, extraordinary demand for new facilities or improvements to existing routes. Private involvement is made more feasible by the fact that private firms, such as residential and commercial developers, have a vested interest in seeing the public infrastructure put in place to make their developments both possible and marketable. Although each of these partnerships is specifically tailored to the situations surrounding the projects, it is useful to review a few of them to get a feel for the general approach that is being employed and identify some of the successes enjoyed and also the problem areas encountered.

Private Toll Roads

Perhaps the most well known of the nation's private toll roads is the SR91 Express Lanes in Orange County, California. This 10.4-mile-long, four-lane facility was constructed in the median of an existing state road that was experiencing heavy congestion. The lanes opened to traffic in late 1995. A private firm was awarded the franchise to construct and operate the lanes, for which the tolls are set at variable levels depending on the congestion in the adjacent toll-free lanes. Despite average daily traffic of more than 20,000 vehicles per day, the facility has still not reached the level of return on investment that the agreement allows the private operator to earn.

Another well-known private toll road is the Dulles Greenway in Virginia, near the Washington, D.C. area. This 14-mile facility is a four-lane, limited access road that connects a state-operated toll road to the Washington-Dulles International Airport. The private investor group that built and operates the Greenway is known as Toll Road Investors Partnership II (TRIP II). They opened the facility to traffic in September 1995. However, in June 1996, TRIP II defaulted on some of its obligations and it took until April 1999 for refinancing of all outstanding obligations to be satisfactorily resolved. Weekday traffic on the Greenway currently exceeds 45,000 vehicles per day and an expansion project to add an additional lane along part of the road was begun in June 2000.

A private toll road project that is currently under construction is the Southern Connector in Greenville, South Carolina. This facility is 16 miles long and serves a fast growing area in the southern part of the metropolitan area. The project and its private developer were hit with two legal actions challenging the financing plan and the state's role in the development. However, the state courts ruled in favor of the state transportation department, permitting their contribution of a number of critical components of the project. The SCDOT has agreed to assist with the undertaking by performing preliminary design and environmental work, acquiring right-of-way, providing for maintenance of the completed project, and protecting the private operator from competition from other routes that the state might later develop. The project is currently ahead of schedule and is expected to open in the spring of 2001.

Finally, it is appropriate to mention a group of projects that are of a substantially different scale than those just discussed. A private developer in the state of Alabama has thus far developed and is operating three private toll bridges in that state, which were constructed with some $38 million in private investment. This firm, United Toll Systems (UTS), has found something of a "niche" in the development of smaller toll bridges that provide needed connectors to fast developing areas. The President and CEO of UTS, Jim Allen, has been contacted by both public and private officials in other states and abroad to explore the wider application of his approach to delivering highway facilities for which conventional public funding is not available.

Tax Increment Financing

Some working examples of Tax Increment Financing approaches can be found in several of Kentucky's border states. In fact, to the north, Illinois, Indiana, and Ohio all have TIF programs that have been in operation for many years. Enabling legislation was enacted in 1975 by Indiana's legislature, and in 1977 in Illinois. Although the genesis for these states' programs, and similar programs throughout the nation, was originally the redevelopment of so-called "blighted" areas, they have since been expanded to assist virtually any type of public infrastructure project, including roads.

The Commonwealth has recently gained statutory authority for its local governments to use the TIF technique. Legislation was enacted by the 2000 Kentucky General Assembly to allow cities and counties to create tax increment districts known as "development areas," undertake infrastructure projects funded with the tax increments, and issue increment-secured bonds to provide financing. The bill, enacted as House Bill 522, was entitled the Kentucky Increment Financing Act and is codified in KRS Chapter 65.

Kentucky officials were contacted by an Ohio firm during the summer of 2000 to discuss the possibility of state involvement in public/private partnerships that would use the new tax increment financing law to develop interchanges on existing limited access highways. The firm, Interchange, Inc. of Columbus is headed by Thomas W. Dalcolma, and specializes in mixed-use land development projects that are designed in conjunction with an interchange project. Dalcolma has been closely involved with the development of several such projects in Ohio since the late 1980s. One of these was the Tuttle Crossing Interchange on Interstate 270 in Columbus, which was the first 100 percent privately funded highway venture in the state. More recently, Interchange, Inc. has worked with the Butler County Transportation Improvement District to expedite and innovatively fund the Union Center Boulevard Interchange on Interstate 75 in southwest Ohio.

63-20 Corporations

Some state and local governments have used IRS Revenue Ruling 63-20 to support public infrastructure projects without having to draw down their own tax exempt bond financing capacity. This approach has predominantly been used to support construction of state buildings or local utilities, such as water treatment plants.

This strategy has recently been employed to support two road projects including the Greenville, South Carolina Southern Connector (discussed previously in this chapter) and the Pocahontas Parkway near Richmond, Virginia. The Southern Connector uses the 63-20 methodology as one component of the financing package for this privately owned toll road. The Pocahontas toll road was the first project approved under Virginia's new Public-Private Transportation Act and combines several innovative financing tools to fund this 8.5-mile, four-lane connector at a total cost of some $400 million.[24]

Shadow Tolls

Shadow tolls have not been used in the United States, according to the FHWA sponsored reports.[25] Therefore, the staff looked abroad for experiences in the application of this financing technique. They note that, at

[24] FHWA Innovative Finance Quarterly, "Pocahontas Parkway: The 63-20 Financing Option" Summer 2000,Volume 6, Number 2.
[25] FHWA reports, "The Selective Use of Shadow Tolls in the United States" and "The Applicability of Shadow Toll Concepts in the United States." Oreoared bt Urs Greiner, Inc. in association with Public Financial Management, Inc., 1998. Available on FHWA website at http://www.fhwa.dot.gov//////innovativefinance/shadtoll.htm

the time of their review in March 1997, the United Kingdom had entered into eight shadow toll contracts with private consortia in Great Britain, and was developing seven more. There were two major goals of this initiative:

- To obtain better value by "incentivizing" the private operator to consider life-cycle costs
- To cultivate a private sector to operate with real tolls when, and if, they are implemented

A variety of projects were selected, including newly constructed roads, major upgrades of existing roads to "motorway" standards, and maintenance of existing roads with only minor improvements. The payments to the operators were based on traffic volumes, so the firms had reason to open the road as quickly as possible and minimize the impacts on traffic by maintenance activities. Other incentives that were tried were bonuses for reductions to accident rates and deductions for lane closures.

The initial results from the UK's experiment with shadow tolls have been promising. The U.K. government attempted to measure the savings generated by the eight projects by developing "public sector comparators" – estimates of the costs the state would have paid using traditional methods to build and operate the facilities. Two different groups undertook these calculations and came up with similar results – average savings of 15 percent over 30 years. However, officials have admitted that the analysis is very sensitive to interest rate and risk valuation assumptions, and changing those assumptions could yield significantly different results. More years of experience should produce more reliable data for judging success in Britain, and other countries in Europe are following the U.K.'s lead. At the time of the report, Finland had begun a shadow toll project, and Germany has launched a major road privatization initiative involving some 30 projects, some of which may include shadow tolls along with conventional tolls.

7.3 OPPORTUNITIES AND BARRIERS FOR KENTUCKY PROJECTS

Public/private partnerships seem to hold real promise for unlocking new sources of funding and innovative methods for building and operating transportation projects. This is being demonstrated throughout the United States and, in fact, the world. At the same time, prominent failures of certain public/private ventures have pointed up the problems these arrangements can encounter. To be successful, public/private partnerships require a strong commitment from both sectors to work together and to employ the knowledge and resources they have available in a constructive

manner. Through this study's review of literature describing hundreds of projects that have employed partnerships, a number of themes have appeared, including the following:

- The private partner brings market efficiencies to the financing, design and implementation of projects
- The government partner's role is to ensure that the project integrates with the wider transportation network and that general economic benefits to the populace are achieved
- Private firms frequently get involved in public projects because they have other interests (securing construction work, development opportunities)
- Partnerships are unlikely to eliminate the need for public subsidy of transportation projects; however, they may reduce the amount of government subsidy
- The reallocation of risk inherent in a major project from the public sector to the private entity in exchange for a reasonable rate of return on investment is one of the most difficult issues in establishing a partnership
- Local advocates for a project are more likely to push for solutions involving a private entity if it is clear that traditional funding sources, such as state and federal grants, will not be available
- Private involvement in a project will be significantly affected by the tax treatment of the debt financing for the venture
- Private toll roads have demonstrated that non-public operators will apply very aggressive marketing and customer service efforts, unlike public agencies
- The private firm's ability to procure using other than "low bid" can be positive, particularly in areas such as technology. Private ventures have also shown creativity in developing spin-off uses for its technology to lower costs

7.4 APPLYING PUBLIC/PRIVATE FINANCING IN KENTUCKY

In the following sections, this report provides an assessment of the potential for the Commonwealth of Kentucky to apply these different types of public private partnerships to advance needed transportation infrastructure projects. Each of the major public/private initiatives being utilized or considered in other states and regions are considered.

Private Toll Roads

Given Kentucky's current predisposition against using tolls as a road financing option, state officials may need to undertake an extensive public

relations effort to gain acceptance of a private toll road financing option. The experiences in other states indicate that highway users must be convinced that a new route or major improvements to existing routes would not be possible if conventional funding techniques, such as state and federal grants, are relied upon. On the other hand, when given the choice between a toll road and a general tax increase to support highway construction, taxpayers seem to favor the toll option.

From a legal standpoint, it appears that Kentucky officials could proceed with the development of a completely privatized toll road under existing statutes. However, because of the many complex issues that can arise in pursuing such a project, it is recommended that the Commonwealth enact a body of law to specifically deal with such arrangements. Virginia enacted its Public-Private Transportation Act of 1995 after a yearlong collaboration among the General Assembly, representatives of the private sector, and the Governor. The Virginia Act allows for both solicited and unsolicited project proposals, and provides specific guidelines for the submission and selection of projects. The law also deals with the potentially contentious issue of property condemnation.

Tax Increment Financing

Tax increment financing provides an opportunity to bring local governments into public highway funding, an arena traditionally dominated by the federal and state governments. This technique, in its' many forms, can also involve the private sector. The establishment of a tax increment district helps assure that the local partners in a project are fully engaged in assuring the project's success. As a result, all phases of project development and operation are generally improved.

The Kentucky General Assembly enacted TIF legislation during the 2000 Legislative Session. This language, contained in KRS Chapter 65, provides authority for Kentucky cities and counties to undertake tax increment financing for any capital project that serves economic development purposes, which the law proclaims to be a "public purpose." This legislation would, of course, permit TIF financing for highway and other infrastructure improvement projects such as river ports, airports, railroads, or intermodal facilities.

The tax revenue increments that may be captured to finance TIF projects must come from ad valorem (property) taxes or occupational license fees. It is important to note the existence of a limiting factor to the use of property-tax-based increment financing in Kentucky. The Kentucky Revised Statutes restrict the annually permitted amount of revenue growth that local governments may collect from the ad valorem tax to four percent per year,

excluding the growth from "new property." If, due to increases in the assessed value of existing property, a city's or county's total property tax collections will grow more than four percent, the local government must adjust its property tax rate to limit the growth to four percent. Because the jurisdiction may exclude the value of property improvements from this calculation, the impact on the potential growth in receipts (the tax increment) is less. However, it is still a limitation on the potential effectiveness of the tax increment financing technique to support the maximum level of economic development projects.

63-20 Corporations

There are opportunities for the Commonwealth or its local governments to use IRS Revenue Ruling 63-20 to provide tax-exempt bonding authority for public transportation projects. The principal advantage of IRS 63-20 is that funding from the tax-exempt bond market may be used even though a private firm or non-profit corporation is involved in the construction and operation of the facility. Kentucky has statutes that were enacted in 1976, which deal with this type of corporation, and it is codified in KRS 58.180. State officials, with assistance from their financial and legal advisors, should, however, carefully review this language, other relevant statutes, and the latest guidance from the IRS on 63-20 Corporations before proceeding with this approach. Matters that should be considered are the need to seek legislative approval for establishment of the non-profit corporation itself and, thereafter, whether explicit approval for the corporation to issue bonds and construct the project is required. It should be pointed out that the Kentucky General Assembly has recently taken an increased interest in projects that are financed through so-called "conduit" entities. Members have expressed concern that projects so funded often ultimately the responsibility of the State.

Shadow Tolls

Shadow tolls may be considered to be among the more "unconventional" of the innovative transportation financing approaches this study has reviewed. Moreover, it is the only technique discussed that has yet to actually be employed in the United States. Still, this technique may have considerable potential for applying the market-driven efficiencies of the private sector to the traditional government functions of highway construction and maintenance. Kentucky officials may want to look into the possibility of privatizing some of its highway responsibilities and use the shadow toll concept as the basis for compensating the private operator. The Commonwealth has, over the past 25 years, moved a considerable portion of its roadway work from being performed by state employees to being handled by private industry. State officials have successfully incorporated into these

contracts a variety of performance measures, incentives and disincentives. The shadow toll methodology would seem to represent a natural continuation of this evolution in transportation systems management.

As with previously discussed innovations in public/private partnerships, the Transportation Cabinet should consult with its financial and legal advisors, once any potential project is identified. The virtually unlimited number of variations on this theme makes it impossible for this study to effectively assess statutory obstacles or other requirements that might need to be addressed. However, it appears that some relatively straightforward projects using shadow tolls would be possible under existing law. In their most basic form, shadow tolls are simply an innovative way of compensating a private contractor for his work.

CHAPTER 8: CONCLUSION

The Commonwealth of Kentucky must provide its citizens with adequate and efficient transportation systems to assure economic opportunity and a basic quality of life in the modern world. However, the state faces challenges in delivering needed infrastructure improvements at a time when traditional revenue sources available for these improvements are not keeping pace with growing demands on the systems. This situation is particularly evident in regard to the highway system. Vehicle travel in Kentucky over the past 20 years has increased approximately 2.4 times faster than the growth in the buying power of the principal highway funding mechanism, the Road Fund.

Faced with this reality, state decision-makers should examine alternative methods for funding the Commonwealth's transportation needs. This study offers background on Kentucky's past and current approaches to funding highways and other transportation systems and presents new financing options that are available. These innovative financing techniques represent additional tools that can be employed to preserve or extend scarce existing revenues, leverage additional revenues from other sources, and deliver projects faster than would have otherwise been possible.

Many of these innovative financing techniques have grown out of an initiative by the United State Department of Transportation. Federal officials have recognized that the demand for transportation investment has outpaced available public funding. The Department and the Congress have put several programs in place that provide administrative and credit assistance to public providers of transportation services and incentives to bring private partners into the funding picture. Taken together, these programs give project sponsors a multitude of financing choices, many of which can be combined to fit specific situations.

The first innovative financing program offered by the USDOT was the Test and Evaluation Project 045 (TE-045), which introduced expanded flexibility to the federal aid highway program. Among eight funding tools made available through TE-045, states made the most extensive use of Advance Construction and Flexible Match. While Kentucky has employed Advance Construction and is, in fact, significantly increasing its use of this technique, the state has not used the other options in any substantial way. It is the finding of this review that Kentucky could benefit from application of the Flexible Match programs. In particular, the Commonwealth is eligible for Toll Credits that may be used as "soft match" for federal projects, thereby preserving state matching funds for other needs.

The study identified State Infrastructure Banks, or SIBS, as the most widely utilized innovative transportation financing approach, having been established in 31 states. These state-operated revolving funds make loans and provide other forms of non-grant assistance to transportation projects. As the loans are repaid, the bank's funds are replenished and thus can be "recycled" for additional loans. Many states have enjoyed successful SIB programs and more than $765 million in loans have been arranged since the Congress sanctioned the concept in 1995 and allowed states to capitalize their banks with their federal highway aid funds. However, the program suffered a setback in 1998, as this capitalization provision was limited back to only four pilot states. This change is seen as limiting the options for initial start-up cash for a Kentucky infrastructure bank, effectively forcing officials to use state resources for that purpose. Still, this study concludes that the state could potentially tap new sources of project funds with a SIB, and that the availability of this financing option increases the likelihood that more transportation projects will move forward.

Another federally sanctioned innovation -- called GARVEEs -- permits states to issue transportation project bonds that are to be repaid using future federal highway grants. These Grant Anticipation Revenue Vehicles allow states to deliver highway improvements on an accelerated schedule, through borrowing, with the added advantage of tying the bonds to a non-state stream of revenues. Because bond buyers and rating agencies view this stream of income as relatively secure, the debt markets have rewarded this borrowing approach with acceptance and reasonable rates of interest. While these transactions can be somewhat complex to structure, Kentucky officials may wish to evaluate their use for certain projects. In particular, high priority projects that are likely to be constructed from a restricted use federal aid category over a period of years could, instead, be built sooner with bonds secured by the annual flows from that category. Examples of such categories are the Appalachian Development, Interstate, and Bridge Programs. The Commonwealth may also want to consider combining the Toll Credits innovative finance tool with this to reduce the burden that GARVEEs can place on the state matching account.

This study also reviewed a program made available by the federal government that provides credit assistance to major transportation projects of national importance. The Transportation Infrastructure Finance and Innovation Act, or TIFIA, can provide up to one-third of a project's cost, with the remainder to come from other sources, including co-investment from the private sector and revenues generated by the project. The first eight TIFIA projects are underway and the study's examination of them reveals that the USDOT's involvement -- through either direct loans or other forms of credit enhancements -- is usually but one component of a diverse funding package.

The number of potential Kentucky projects for TIFIA is limited because of the requirements that projects must cost at least $100 million and be of national or regional significance. The state does have a few projects that could qualify, such as the Louisville Bridges project, a multi-modal facility planned for the Bowling Green area, and proposed light rail systems in two of Kentucky's major metropolitan areas.

The final group of funding innovations reviewed in this study was a broad category known as "funding partnerships." These partnerships are designed to bring in participants not normally thought of when funding state highway projects or other transportation infrastructure, even though they may have a considerable interest in them. These non-traditional partners include private companies or consortia, not-for-profits, and even units of local government. Although the variations on this theme are virtually limitless, four of the more common derivations were examined; private toll roads, tax increment financing, 63-20 corporations, and shadow tolls. The applicability of private toll roads to Kentucky is seen as a challenge because the state has been in the mode of removing tolls from roads, not adding them. Nevertheless, there may be situations where motorists would accept this type of user fee. Tax increment financing is seen as a viable approach to funding needed improvements and, at the same time, addressing planning issues and partnering with local governments and developers to assure their fullest commitment to the success of the projects. The 63-20 corporation that is permitted under IRS rules should be considered by Commonwealth officials as it has been proven in other jurisdictions to be a workable alternative to state-issued infrastructure debt. Finally, shadow tolls have only been implemented overseas to this point, but seem to offer a creative avenue for testing the market efficiencies of privatizing some of Kentucky's public roads.

It is clear that almost all of the innovative financing techniques described in this study, with the possible exception of some of the TE-045 tools, carry with them a level of legal and financial complexity of which Commonwealth officials must be aware. Throughout this study, the authors have repeatedly encouraged state officials to employ bond attorneys, underwriters, and other financial advisors who have proper experience with these tools. As many of the techniques have borrowing as a centerpiece, the importance of properly structuring the funding deal and the debt instruments cannot be overstated. In the same manner, authorizing legislation is likely required for many of these approaches. By drawing on the aforementioned experts, the experiences of other states, and the assistance available from the USDOT, establishment of sound statutory authority will ease the actual project financings that follow.

Innovative transportation finance offers Kentucky's transportation policy makers valuable alternatives for delivering the infrastructure demanded by

the systems' users. They can stretch available resources, provide new fund sources, allow projects to be completed sooner, involve more partners in the effort, and introduce efficiencies to the processes. However, it is clear that these new ways of funding projects require an enhanced level of expertise, commitment, and effort. It is hoped that this report's assessment of these options is helpful to Commonwealth officials as they search for the best solutions to the transportation system challenges confronting them.

Appendix A: Innovative Finance--A Glossary of Key Terms

The following is a glossary of terms frequently used in discussions of SIBs and related innovative transportation financing techniques. While these definitions are targeted to how terms are generally used in the world of SIBs, they are generally applicable to all innovative financing tools.

Advance capitalization (ACAP). A federal-aid funding procedure that permits each pilot state to notify FHWA when it has identified an amount of federal assistance that it may ultimately convert to a SIB capitalization grant. ACAP simply establishes a baseline from which to calculate the maximum amount of federal funding that may be deposited into a SIB during succeeding years. For example, a state wishes to contribute $10 million of federal-aid funds to its SIB. The declared ACAP amount is recognized at the outset and then funds are deposited to the SIB incrementally per federal disbursement provisions. The ACAP process is not used in capitalizing transit accounts. Instead, a similar process, in which grantees commit an amount of grant funds to SIB capitalization, is employed.

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

Build/operate/transfer. Public-private partnership arrangement involving private construction, private operation for given period of time, and eventual transfer to public ownership. SIBs can provide assistance to these partnership arrangements.

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

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

Cooperative agreement. Written consent between a state and the federal government used to define the process of SIB implementation. The agreement

outlines the basic structure and purpose of the SIB and roles of each party, and sets forth how the funds of the SIB will be administered.

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

Credit enhancement. Financing tools -- such as letters of credit, lines of credit, bond insurance, debt service reserves, and debt service guarantees -- that improve the credit quality of underlying financial commitments. Credit enhancements, which can be provided through a SIB, have the effect of lowering interest costs and improving the marketability or liquidity of bond issues.

Design/build. Public-private partnership arrangement whereby a single contractor (or team of contractors) is entrusted with both design and construction of a public infrastructure project. This contrasts with traditional procurement where one contract is bid for the design phase and then a second contract is bid for the construction phase of the project. SIB assistance can benefit either arrangement at any eligible project phase. In both instances, ownership of the project remains with the public sector.

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

Grant anticipation notes (GANs). Short-term debt that is secured by grant money expected to be received after debt is issued. SIBs may buy anticipation notes on behalf of project sponsors in advance of intergovernmental assistance, to enable a faster project start. Helps project sponsors advance projects, especially when unable to access capital markets. GANs also may be used to speed SIB capitalization.

Guarantee. A contract(s) entered into by a SIB in which the SIB agrees to take responsibility for all or a portion of a project sponsor's financial obligations for a project under specified conditions.

Initial assistance. First round of SIB monies, that must be loaned or used for credit enhancement for purposes limited to highway construction under title 23 or transit capital projects under title 49.

Interest subsidy. SIBs may subsidize interest rates for project sponsors, lowering overall financing costs. With this tool, project sponsors repay loans at less than current market rates. Market rates may be determined by the cost of borrowing through conventional issues of comparable duration.

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

Leverage. A financial mechanism used to increase SIB funds through debt issuance, for example. A SIB is considered leveraged if its total potential liabilities exceed its equity. A SIB may be leveraged in two ways: 1) by issuing debt (typically bonds) on its own behalf; or 2) by guaranteeing or otherwise assuming liability for others' debt in an amount greater than the SIB's cash balances.

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

Loan. Any form of direct financial assistance from the SIB, subject to repayment, which is provided to a project sponsor for all or part of project costs.

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

Obligations. Conversion of a state's declared ACAP amount into a SIB deposit. Obligated funds represent an official commitment to capitalize the SIB.

Outlays. An outlay represents an official payment of funds from FHWA to a SIB account in response to a SIB's submission of a voucher for reimbursement. Capitalization funds must first be obligated, then outlayed, resulting in a deposit of funds to a SIB.

Project revenues. All rates, rents, fees, assessments, charges, and other receipts derived by a project sponsor from a project. Generally, the source of SIB assistance repayment.

Recycled funds. Second and future generation(s) of SIB assistance, resulting from repayment of prior assistance.

Revolving loan fund. Financing tool that recycles funds by providing loans, receiving loan repayments, and then providing further loans. A SIB is a revolving loan fund, but with credit options a SIB can be more than a simple revolving loan fund.

Soft loan. Loan provided to a project sponsor with flexible repayment terms. Soft loans, which can be provided through a SIB, are generally subordinate to other debt, can have variable repayment schedules and extended terms, and subsidized interest rates.

Source: US Department of Transportation, Federal Highway Administration.