The Benefits of TEA 21 Funding Guarantees

Prepared on Behalf of the
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Executive Summary

The guaranteed funding provided by the Transportation Equity Act for the 21st Century - TEA 21 - has stretched scarce federal dollars for public transit further and produced additional spin-off benefits by accelerating construction and leveraging new sources of state and local matching funds.

Congress is now able to spread its commitments to New Start fixed guideway projects over a longer time frame than the construction period. The flexibility to borrow against Full Funding Grant Agreements has allowed the total number of projects participating in the Section 5309 New Starts Program to increase in recent years.

Although not directly within the scope of the current research effort, documentation examined thus far confirms that the TEA 21 "firewalls" are yielding similar benefits in the federal highway program, allowing future apportionments to be programmed on an accelerated basis through advance construction and grant anticipation financing.

By contrast, the year-to-year funding allotments to specific projects under the Section 5309 Bus Discretionary Program have not produced as big of a "bang for the buck." Even though the Discretionary Bus Program receives guaranteed funding, the absence of a mechanism for assuring multi-year allocations to grantees has precluded leveraging opportunities.

Similarly, as the fall in federal highway program budget forecasts resulting from the Revenue Aligned Budget Authority formula has demonstrated, year-to-year budget fluctuations in national infrastructure programs can trigger additional costs, disruption to contracting plans, construction industry job losses and delays to work in progress.

Continuing the transit funding guarantees strengthens the case for innovative finance and will allow the maturity of grant anticipation debt eventually to be extended. The longer stable appropriations for transit continue, the perceived risk of reauthorization will decline and encourage more favorable credit reviews and interest rates.

Perhaps most significantly, higher levels of guaranteed federal support under TEA 21 are attracting even higher levels of stable, reliable non-federal matching funds. Even as federal support for public transit sets new records each year, the federal share of capital investment has dropped from 58 percent in 1990 to 47 percent in 2000. During the 1990's federal outlays for transit capital investment grew at an average of 5.0 percent per year, while local expenditures climbed at an average annual rate of 11.7 percent. Almost half of this local support is now in the form of taxes dedicated to public transportation and is here to stay.

The examples and statistics reviewed in this study confirm that the funding guarantees under TEA 21 are not about receiving a steady paycheck, they are all about increasing the value created from the limited federal dollars available for public transit. Guaranteed dollars are more valuable because they can be leveraged further, planned better and managed more efficiently. Best of all, they attract even higher levels of state and local support. As the experience under TEA 21 demonstrates, when adequate investment supports high quality service, the public will choose to ride transit.

Overview

Public transportation systems across the United States rely on TEA 21 guaranteed funding levels to underwrite their capital investment programs. The benefits from the funding guarantees are realized in many ways:

- Billions of dollars of capital investments needed for expansion and state of good repair are being accelerated,

- More New Start projects have been initiated than would have been possible in the pre-TEA 21 era of annual funding uncertainty,

- More stable and reliable federal funding has leveraged more stable and reliable state and local matching revenues,

- Communities large and small have been able to plan capital programs with more certainty and focus management attention on project delivery,

- Contracting efficiencies have cut costs and minimized inconvenience to the public during construction,

- Investments in transit assets have been protected by assuring regular funding for maintenance and capital renewal, and

- More stable capital funding is allowing manufacturers and suppliers to better meet the public transit industry's specialized needs arising from accessibility standards, air quality initiatives and other federal mandates.

With transit ridership increasing at an annual average rate of 4.5% since 1997, bringing about the highest transit ridership levels in 40 years, the amount of investment required to sustain growth, avoid overcrowding, and offer an attractive alternative to highway congestion is expanding. TEA 21's funding guarantees provide the stability and predictability necessary to reduce the backlog of deferred maintenance and deliver consistent service levels. The public has responded by increasing transit usage over the past six years at almost twice the growth rates of highway and domestic air travel.

Transit and highway investments tend to be large and lumpy – whether replacing a fleet of buses, building a fixed guideway system, or constructing maintenance facilities. The outlays for these projects occur over many years and must be carefully budgeted in advance. As the formula-driven proposal to reduce Federal Highway Administration resources under Revenue Aligned Budget Authority (RABA) demonstrated this year, annual budget fluctuations wreak havoc with projects carried out under multi-year work programs.

What Are The TEA 21 Funding Guarantees?

Funds for the federal transit and highway programs are *authorized* by Congress for five or six year periods. Annual appropriations are then required to make the authorized funds available. Prior to TEA 21 it was not possible to anticipate how much of the authorized funding levels would actually be *appropriated* each year. The significance of TEA 21 is that it authorized $41 billion for transit programs between FY 1998 and FY 2003 ***and*** established a "funding guarantee mechanism" that assured a minimum of $36 billion would be appropriated.

The $36 billion was divided annually and allocated to individual transit programs. For formula grants such as Section 5307 Urbanized Area, Section 5311 Non-Urbanized Area and Section 5309 Fixed Guideway Modernization, the annual guaranteed amounts allowed individual transit agencies to plan their future capital programs with an unprecedented amount of certainty.

How does the guarantee mechanism work in practice? Uniquely, Title VII of TEA 21 provides "offsets" in discretionary spending, which mean that the guaranteed annual levels are already "paid for" under congressional budgetary rules.

Each year since enactment of TEA 21, Congress has honored the funding guarantees. This study shows just how important funding guarantees have been in providing safe, reliable and high-quality public transportation services that help communities increase accessibility, improve highway performance, upgrade air quality and enhance urban and rural environments.

Source: TEA 21 – A Summary of Transit-Related Provisions, APTA

How can guaranteed funding help to fill the gap between growing demand for transit investment and scarce federal resources?

The guaranteed funding provisions of TEA 21 have created a new phenomenon – from a financial perspective, a "guaranteed" dollar offers more value than a non-guaranteed dollar.

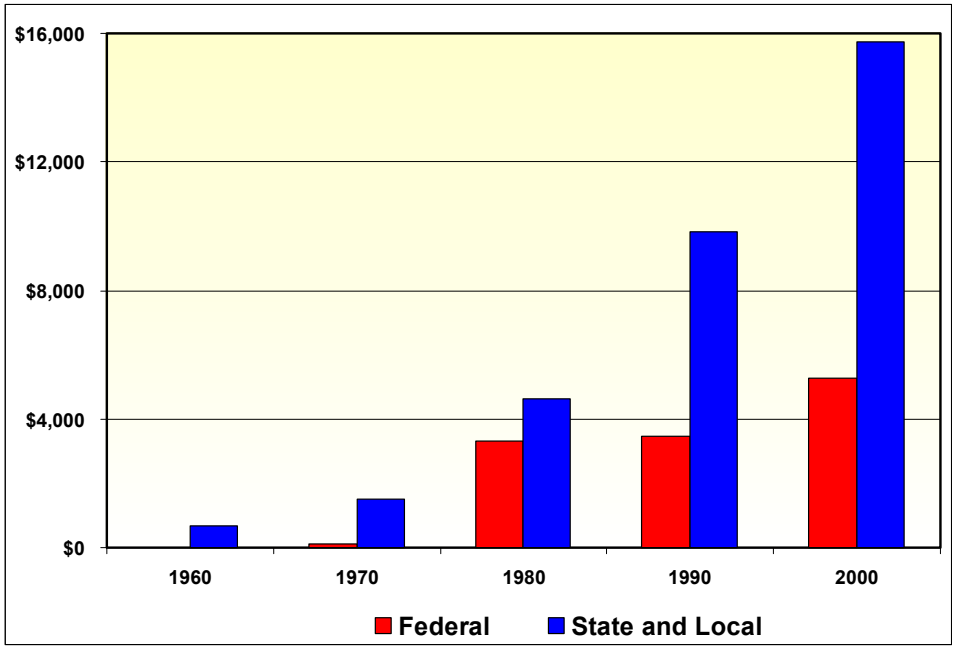
> ***To maximize the "bang" for each "buck" of available transportation funding, states and public transit agencies are collaborating with the U.S. Department of Transportation to implement innovative financing strategies. The ability to leverage guaranteed funding under TEA 21 allows Congress to manage Trust Fund resources within difficult budget constraints and still undertake large, complex capital programs. The key to making these finance strategies a success, and expanding them in the future are the firewalls and funding guarantees established in TEA 21.***

Funding guarantees allow the private financial markets to make scarce federal dollars go even further. Even as TEA 21 increased federal transit resources at an average rate of nine percent per year, the financial markets used the funding guarantee provisions to produce an even bigger "bang for the buck." The guarantees have allowed Section 5307 Urban Area formula grants, Section 5309 Fixed Guideway Modernization grants and Section 5309 New Starts funding to serve as collateral for loans that have accelerated construction and reduced project costs. Thanks to the TEA 21 guarantees, the use of Section 5307 Urban Area Formula assistance to make lease payments for bus and railcar purchases is helping to stabilize fleet replacement cycles for transit systems of all sizes.

As the confidence of the financial markets in multi-year federal transit commitments grows, the benefits of guaranteed funding will continue to increase. Continuation of TEA 21 funding guarantees can help extend lease terms for facilities and rolling stock over longer time frames and encourage lower interest rates.

Not only are federal funds being leveraged in the financial markets, more stable and reliable federal funding is attracting even higher levels of stable and reliable non-federal funding.

Funding Levels for Public Transportation
(millions of year-of-expenditure dollars)



Source: National Transit Data Base

As federal transit appropriations for capital investment increased at a rate of 5.0 percent per year between 1990 and 2000, local funding for capital was growing at ***11.7 percent per year***. The federal share of transit capital projects has declined from 58 percent in 1990 to 47 percent in 2000. Overall federal funding for public transportation grew 60 percent between 1980 and 2000, while non-federal funding leaped ***240 percent***. With almost one-half of non-federal funding derived from dedicated taxes, stable, reliable federal appropriations are attracting even larger commitments of stable, reliable non-federal matching support.

The following chapters provide examples of these successes under TEA 21:

- Guaranteed Funding Facilitates the New Starts Program,
- Guaranteed Funding Helps Leverage Federal Formula Funding,

- Guaranteed Funding Helps Attract Higher Levels of State and Local Matching Funds, and

- Guaranteed Funding Increases Capital Budgeting Efficiency.

Guaranteed Funding Facilitates the New Starts Program

A recent APTA analysis calculated that completing the 155 New Start fixed guideway projects that have received discretionary Section 5309 appropriations will require almost $70 billion between FY2004 - 2009. Even maximizing the non-federal and non-New Start funding shares for this "pipeline" of Congressionally-endorsed projects still leaves a large funding gap when considering the entire Section 5309 New Start pool in TEA-21 is only $1.2 billion per year.

Assuming that only one-half of the remaining funding comes from the Section 5309 New Start pool, about $7 billion per year over the next five-year authorization period would be required to build the current pipeline – which does ***not*** include the 53 additional projects authorized under TEA 21 (but not yet appropriated) that total almost $28 billion.

In order to increase the number and diversity of projects receiving New Start support, Congress and the Federal Transit Administration have spread the multi-year funding commitments made under Full Funding Grant Agreements over longer time frames. Today, the annual New Start appropriation to projects typically do not correspond to the actual obligation and pay-out schedules for the projects they fund – in fact, the last federal dollars may be obligated years after a project enters revenue service. This delay creates a mismatch of cash flows with construction schedules.

If federal appropriations matched the rate of optimal construction expenditures, the number of New Starts projects that could be funded in any given year would be reduced. On the other hand, if the pace of construction were slowed to match the rate of appropriations, the resulting cost escalation would be extraordinary and disruption to traffic and businesses from construction would be magnified. The guaranteed funding levels for Section 5309 New Starts allow Full Funding Grant Agreement commitments to serve as collateral for loans that bridge the gap between appropriations and construction cash flow requirements.

By contrast, there is no comparable experience in leveraging future federal assistance to accelerate projects or increase program capacity under the Section 5309 Bus Discretionary Program. This program is guaranteed in TEA 21 at more than $3.0 billion over six years but lacks the equivalent of a Full Funding Grant Agreement or a formula distribution mechanism that can offer contingent commitments on a multi-year basis.

How does all of this work in practice?

Table 1 lists the 18 Full Funding Grant Agreements that have been signed under TEA 21.[1] The average duration of a TEA 21 FFGA is 6.4 years, with the Salt Lake City Medical Center LRT having the shortest scheduled duration, three years, and the Southeast Corridor (T-Rex Project) in Denver the longest scheduled pay-out, ten years. There is a strong correlation between the scale of the federal commitment and the duration of the pay-out schedule – the Salt Lake City Medical Center LRT is the smallest

commitment under TEA 21 at $53.6 million, while the Denver Southeast Corridor LRT is the largest at $525 million.

TABLE 1
TEA 21 Full Funding Grant Agreements

TEA-21 Project	FFGA Total	Scheduled Duration of Payments (Fiscal Years)*	Average Annual Pay-Out
Tri-County Commuter Rail Upgrade (Florida)	$110,500,000	5	$22,100,000
San Diego Mission Valley East LRT	$329,958,000	8	$41,244,750
NJ - Newark Rail Link (MOS-1)	$141,950,074	7	$20,278,582
NJ Hudson-Bergen LRT (MOS-2)	$500,000,000	9	$55,555,556
Portland, OR Interstate MAX	$257,500,000	5	$51,500,000
Denver Southeast Corridor	$525,000,000	10	$52,500,000
Memphis Medical Center Extension	$59,667,818	5	$11,933,564
Dallas North Central LRT Extension	$333,000,000	8	$41,625,000
Pittsburgh Stage II LRT	$100,200,000	6	$16,700,000
Minneapolis Hiawatha LRT	$334,277,500	7	$47,753,929
DC/Maryland Largo Extension	$260,300,000	5	$52,060,000
Baltimore Central LRT Doubletrack	$120,000,000	7	$17,142,857
Chicago Douglas Branch Line	$320,100,000	8	$40,012,500
Chicago Union Pacific West	$80,762,000	6	$13,460,333
Chicago Southwest	$103,018,670	6	$17,169,778
Chicago North Central	$135,319,330	6	$22,553,222
Salt Lake City CBD to University LRT	$84,600,000	4	$21,150,000
Salt Lake City Medical Center LRT	$53,633,400	3	$17,877,800
Subtotal, TEA-21	$3,849,786,792	6	$602,575,324

Source: Federal Transit Administration, June 2002; Average Estimates - Jeffrey A. Parker

* All "Prior" treated as one additional year

Final design and construction of modern rail projects is typically a four - five year undertaking, with even more rapid deployment possible. However, the average FFGA duration is 6.4 years, and eight of the 18 TEA 21 projects receive funds over a seven – ten year period.

If the $3.85 billion of TEA 21 commitments were disbursed over 4.5 years instead of the average 6.4 years, the average annual pay-out to existing commitments would grow from about $600 million per year to $850 million per year. Under this example, funding available for projects in the New Start "pipeline" but not yet covered by Full Funding Grant Agreements would have to be reduced by $250 million per year.

In fact, many of the TEA 21 New Start projects are scheduled to receive their final allotments of Section 5309 funding one to two years ***after*** they enter revenue operation. Table 2 compares the last year of the scheduled pay-out under each TEA 21 Full Funding Grant Agreement with the revenue operation date the grantee is required to meet. As of the end of Federal FY 2002, seven of the projects will be in revenue service 12 months or more before their final Section 5309 dollars are obligated.

To avoid having the extended FFGA pay-out schedules slow the pace of construction and increase cost penalties for inflation and overhead, the TEA 21 funding guarantees have allowed grantees to use their FFGAs as collateral for construction loans. ***These securities are unique because they are now backed solely by federal New Start funds due under a Full Funding Grant Agreement***.

TABLE 2
Scheduled New Start Pay-Out Compared to Revenue Operation Date

	FFGA Signed	Last Scheduled Year of Pay-Out (Federal FY)	Revenue Operation Date (ROD)	FTA Forecast Final Payment (Federal FY)	Projected Last Grant Payment (6 Mos After Federal FY)	Projected Lag Between ROD and Last Grant Payment (Months)
TEA-21 Projects						
Tri-County Commuter Rail Upgrade (Florida)	May-00	2003	31-Mar-05	2004	April-04	
San Diego Mission Valley East LRT	Jun-00	2005	31-Dec-05	2006	April-06	3
NJ - Newark Rail Link (MOS-1)	Aug-00	2004	30-May-05	2005	April-05	
NJ Hudson-Bergen LRT (MOS-2)	Oct-00	2008	31-Dec-05	2008	April-08	27
Portland, OR Interstate MAX	Sep-00	2004	16-Mar-04	2005	April-05	12
Denver Southeast Corridor	Nov-00	2008	30-Jun-08	2009	April-09	9
Memphis Medical Center Extension	Dec-00	2003	16-Mar-04	2004	April-04	
Dallas North Central LRT Extension	Oct-99	2004	31-Dec-03	2005	April-05	15
Pittsburgh Stage II LRT	Jan-01	2004	2-Jun-04	2005	April-05	10
Minneapolis Hiawatha LRT	Jan-01	2005	31-Dec-04	2006	April-06	15
DC/Maryland Largo Extension	Dec-00	2005	31-Dec-04	2006	April-06	15
Baltimore Central LRT Doubletrack	Jul-01	2005	31-Dec-06	2006	April-06	
Chicago Douglas Branch Line	Jan-01	2006	31-Jan-05	2007	April-07	26
Chicago Union Pacific West	Nov-01	2006	31-Dec-06	2007	April-07	3
Chicago Southwest	Nov-01	2006	31-Dec-06	2006	April-06	
Chicago North Central	Nov-01	2006	31-Dec-06	2007	April-07	3
Salt Lake City CBD to University LRT	Aug-00	2003	15-Nov-02	2004	April-04	17
Salt Lake City Medical Center LRT	May-02	2004	15-Dec-04	2004	April-04	

Source: FFGA data provided by Federal Transit Administration, Sept-02, Estimates by Jeffrey A. Parker

Case Study: State of New Jersey Grant Anticipation Notes

New Jersey Transit has issued two series of FFGA-backed Grant Anticipation Notes for the Hudson-Bergen Light Rail System and one for the Newark-Elizabeth Rail Link, totaling $845.7 million. The $452.2 million in notes for the MOS-2 portion of Hudson-Bergen demonstrate the importance of funding guarantees and stable, reliable federal commitments in creating a "win-win" situation for grantees, Congress and the U.S. Department of Transportation.

New Jersey Transit is building the Hudson-Bergen Light Rail System under a Design-Build-Operate-Maintain agreement. The Grant Anticipation Notes permitted the agency to sign a $1.2 billion contract for the MOS-2 portion of the Project. The DBOM contractor has guaranteed the cost and completion date for the Project and will operate and maintain it for fifteen years.

Even though the FFGA was signed on October 31, 2000, the first payment under the $500-million Section 5309 New Starts commitment is not due until FY 2003. In November 2000, New Jersey Transit issued $452.2 million of Grant Anticipation Notes to advance the New Start funding expected under the contingent commitment schedule

(Attachment 6) in the FFGA. ***The Notes permitted construction to begin three years prior to the receipt of the first New Start payment due under the FFGA.***

The initial portion of the Hudson-Bergen Light Rail Transit System's MOS-2 is scheduled to be revenue-ready on September 4, 2003 and achieve a Guaranteed Completion Date of June 3, 2005. The FFGA Revenue Operation Date is December 31, 2005. According to the FFGA pay-out schedule, only 10 percent of the federal New Start funding commitment will be appropriated when the Project is substantially complete and only 50 percent will have been appropriated when the full extension is operational. The final payment is not due until FY 2008.

According to PaineWebber Incorporated, the senior managing underwriter for these transactions:

> *"All prior financings secured by federal grants under an FFGA required some additional source of security to overcome the risk of non-appropriation or delays in appropriation of the grants by Congress…*
>
> *The implementation of this structure allows New Jersey Transit to eliminate the need for its "double-barrel" pledge of security for its grant anticipation notes while capitalizing the future grant receipts under their current FFGA. The issuance of the 2000A Notes and the simultaneous release of the New Jersey Transportation Trust Fund (NJTTF) deficiency agreement restored the NJTTF with $350 million in borrowing capacity."* [2]

Moody's rated the underlying credit for the NJTransit Capital Grant Anticipation Notes for MOS-2 and the Newark-Elizabeth Light Rail Link at A3, and AAA with municipal bond insurance provided by AMBAC. In reaching this rating Moody's evaluated the TEA 21 firewall and guarantee structure:

> *"…for these two projects, at least one year of funding is subject to program reauthorization, but the authority to collect the revenues to support the grants already exists. Moody's believes that the reauthorization risk is minimal,* ***given that the Trust Fund cannot be redirected to other federal purposes.***" [3] [Emphasis added]

FitchRatings assigned a BBB+ rating to the NJTransit FFGA-backed transactions, noting:

> *"Strengths of the FFGA program include the contractual nature of the FTA's funding obligation, a comprehensive screening process for transit projects (which includes project approvals at both the local and federal levels and completed environmental reviews), and a local financial commitment…Weaknesses of the program are largely political in nature. The FTA's contractual obligation is subject to congressional appropriation, and congressional intervention at the project level can significantly affect the timeliness of grant payments. In addition, all federal surface transportation funding is subject to reauthorization cycles; TEA 21, the current transportation funding cycle, runs through 2003. Finally,*

there has been a slight timing discrepancy between committed and received grant funds."[4]

Case Study: San Francisco Bay Area Rapid Transit (BART) Grant Anticipation Notes

Subsequent to the NJTransit transaction, PaineWebber closed $485.4 million of Capital Grant Anticipation Notes for BART's $1.48 billion San Francisco Airport (SFO) Extension using the FFGA established under ISTEA as the sole source of security. Outstanding commercial paper that was being used to advance construction of the SFO Extension totaling $300 million was refunded and defeased with the note proceeds. BART is building this Project using large, design/build contracts.

When the Project opens for revenue service later this year, BART will have received approximately one-half of the $750 million Section 5309 funds committed under the FFGA, with the balance of the revenue scheduled to be paid by FY 2006 – almost four years after the SFO Extension begins revenue service.

BART's FFGA was signed on June 30, 1997, yet it has been receiving appropriations under the New Start program since Federal FY 1992. FTA anticipates that the last Section 5309 grant to BART under this FFGA will occur in FY 2007 – 16 years after the first budget allocation. The FFGA commitment schedule is "back-end loaded" with almost $460 million anticipated between Federal FY 2002 and 2007 (compared to $290 million between Federal FY 1992 and 2001). ***Had this project been funded over a typical five-year construction cycle, annual average appropriations of $150 million would have been required, rather than the $47 million annual average that will result from the 16-year pay-out.***

According to Scott L. Schroeder, Controller/Treasurer of BART:

"*BART previously financed this project with Commercial Paper and a supporting Letter of Credit that required a back-up pledge of the District's financial resources. The back-up pledge was very detrimental because it limited BART's financial capacity. The Letter of Credit also was costly and had a floating interest rate pegged to LIBOR, making it difficult to gauge the future financing cost to the Project. The breakthrough for replacing the Letter of Credit with "stand-alone" Grant Anticipation Notes came when AMBAC agreed to insure bonds without a backstop pledge."*[5]

Moody's analysis of the BART FFGA-backed transaction indicated that TEA 21 firewalls and funding guarantees are an important element of making this financial structure viable:

"*The total federal contribution, and the requirements to receive the contribution, are laid out in the FFGA. The total amount provided under all FFGAs cannot exceed the amount provided for in the New Starts program. TEA 21 lays out the*

multi-year spending authorization for transportation projects through 2003, while [C]ongress has further authorized the collection of revenues of the Highway Trust Fund through 2005. The final year of funding for this project under the FFGA is 2006. Thus, three years of funding is subject to program reauthorization and collection of one year's revenues is not authorized. Moody's believes that the reauthorization risk is minimal, given historic funding levels, popular support for the transportation programs, ***and the dedicated Trust Fund established for both highways and transit programs that cannot be redirected to other federal purposes.***"[6] [Emphasis added]

As the New Jersey and BART transactions demonstrate, the TEA 21 funding guarantees and firewalls are permitting Congress to "leverage" future appropriations committed under Full Funding Grant Agreements in the capital markets, allowing pay-out schedules to be extended and more projects to receive assistance from limited New Start funding.

Additional Costs Incurred When New Start Funds Are Not Guaranteed

Grant anticipation financing measures create interest expense for grantees and add complexity to the financial packages, all of which are affected when the FFGA pay-out schedule is not met by Congressional appropriations. This is the downside of ***not*** having a funding guarantee on individual commitments. The appropriations shortfalls for individual TEA 21 and ISTEA projects in progress are provided in Table 3 and total $343.6 million.[7]

As an example, Denver's Southeast Corridor, known locally as T-REX, has not received $22.6 million out of the $83.5 million that was due under the Full Funding Grant Agreement through FY 2002. The Denver RTD issued sales tax revenue bonds one year earlier than its financial plan anticipated to make-up the shortfall. T-REX is scheduled to open for revenue service in FY 2008. FTA currently anticipates that the last Section 5309 New Starts appropriations will not be received until FY 2009. The cost of the delay in funding thus far is estimated to be an additional $4 million in interest that will be borne by RTD.[8]

TABLE 3

Summary of FFGA Shortfalls By Project

TEA-21 Projects	(Shortfall) Surplus Through 2002
Tri-County Commuter Rail Upgrade (Florida)	($18,410,000)
San Diego Mission Valley East LRT	($39,393,955)
NJ - Newark Rail Link (MOS-1)	($294,287)
NJ Hudson-Bergen LRT (MOS-2)	$0
Portland, OR Interstate MAX	($39,209,339)
Denver Southeast Corridor	($22,577,350)
Memphis Medical Center Extension	($9,247,588)
Dallas North Central Extension	($1,925,127)
Pittsburgh Stage II LRT	($2,179,764)
Minneapolis Hiawatha LRT	($499,346)
DC/Maryland Largo Extension	($8,119,456)
Baltimore Central LRT Doubletrack	($5,246,218)
Chicago Douglas Branch Line	($2,577,071)
Chicago Union Pacific West	($3,609,600)
Chicago Southwest	$1,522,385
Chicago North Central	($5,580,800)
Salt Lake City CBD to University LRT	($1,158,531)
Salt Lake City Medical Center LRT	$0
Subtotal, TEA-21	($158,506,047)
ISTEA Projects Still In Progress	
San Juan Tren Urbano	($113,845,813)
Atlanta - Northline Extension	($999,173)
Los Angeles - North Hollywod (MOS-3)	($40,488,590)
San Francisco - BART to SFO	($6,435,835)
Salt Lake City South LRT	($718,006)
St. Louis - St. Clair County, IL Extension	($3,368,056)
NJ Hudson Bergen (MOS-1)	($19,198,678)
Subtotal, ISTEA	($185,054,151)
Total (Shortfall) Surplus Through 2002	**($343,560,198)**

Source: Federal Transit Administration, June 2002
* All "Prior" treated as one additional year

The rating agencies recognize that despite the delays, Congress' track record for honoring Full Funding Grant Agreements is positive, as demonstrated in this statement from Standard and Poors regarding New Jersey Transit's capital anticipation notes:

> *"While every approved project has received the scheduled amount of federal funds (with the exception of two canceled projects), the money has not always been received as scheduled, pursuant to the FFGA."*[9]

The $6.1 billion of guaranteed funding for Section 5309 New Starts under TEA 21 permits innovative financing transactions that accelerate delivery of new rail systems years faster than the pace of federal appropriations otherwise would permit. By allowing the federal share to be paid-out over an extended time frame, more projects have been able to enter the funding "pipeline." The benefits are: reduced construction costs, more geographically balanced programs from transit appropriations, and allowing taxpayers to ride these new systems years ahead of schedules driven by pay-as-you-go spending. On the other hand, shortfalls in Congressional appropriations against Full Funding Grant Agreements increase interest costs for grantees to cover the cash flow gaps, reduce credit ratings, and complicate the "financial engineering" required to issue grant anticipation debt.

The next example reviews the benefits of TEA 21 funding guarantees on maintaining a state of good repair at existing public transportation systems through federal formula assistance programs.

Guaranteed Funding Helps Leverage Formula Assistance

New Jersey Transit has issued approximately $1 billion of Certificates of Participation (COPS) to fund the acquisition of 1,244 buses, 200 passenger rail cars and 24 electric locomotives. The order placed with Motor Coach Industries funded by the COPS is reportedly the largest bus purchase ever made in the U.S.

The Certificates of Participation are a mechanism that permits New Jersey Transit to lease the buses and rail equipment. The lease payments will be made from Section 5307 Urban Area Formula Assistance. No other credit is pledged.

Why did FitchRatings give these transactions an "A" credit rating?

According to FitchRatings, TEA 21 funding guarantees:

- *"Low variability of federal funding levels for transit through 2003.*
- *Money allocated to transit cannot be reallocated for any other purpose without repealing the Transportation Equity Act for the 21st Century (TEA 21)."*[10]

In addition to New Jersey Transit, nine California transit systems, including the Los Angeles Metropolitan Transportation Authority have issued similar Section 5307-backed securities, although other revenue sources were also pledged in these cases. In evaluating the California credits, Moody's notes the TEA 21 funding guarantees:

> *"Moody's ratings incorporate legislative risk associated with the reauthorization and the annual re-appropriation of Section 5307 funding. The current federal authorizing legislation, the Transportation Equity Act for the 21st Century (TEA 21), which was enacted in 1998 and expires in FY 2003, authorizes $41 billion in federal funding for mass transit of which $36 billion is guaranteed."*[11]

The Florida Department of Transportation has helped local transit systems accelerate bus purchases with loans from its State Infrastructure Bank (SIB) to PalmTran, LeeTran and other transit operators. The SIB debts are backed by a pledge of future formula assistance that is, in turn supported by TEA-21's guaranteed funding provisions.

Fleet replacement and modernization is one of the most costly aspects of running public transport systems. It is a recurring need and the use of leases and certificates of participation to spread payments out over the life of the vehicles is a well-established practice in the financial markets.

According to APTA, since 1997, the average age of buses in service at transit systems across the United States has declined from 8.7 to 6.9 years, of light rail vehicles from 21.8 to 17.9 years and of vanpool vehicles from 3.3 to 2.3 years. These gains are directly linked to the stable, reliable funding provided under TEA 21.

In many respects, borrowing against future Section 5307 block grants is analogous to Advance Construction and GARVEE financing structures in the federal highway program. Assured funding for highways in TEA 21 has permitted nine states[12] to issue over $4.1 billion in grant anticipation debt to accelerate major capital projects.

Examples of projects being accelerated using these techniques include:

- Denver's Southeast Corridor, or T-REX Project, is being advanced with GARVEE bonds and includes over $1 billion of highway and light rail transit investment in a common corridor;

- The 120-mile reconstruction of New Mexico's Highway 44 was implemented in three years, rather than over two decades, using GARVEE bonds backed by guaranteed funding under TEA 21;

- Arizona's $50 million Grant Anticipation Notes accelerated improvements to the massive Interstate 10 interchange;

- Ohio used $70 million of GARVEE bonds to accelerate improvements to I-760; and

- California has applied $750 million of Advance Construction Authority to accelerate improvements to the Caldecott Tunnel, provide Golden Avenue/SR 125 sound walls and seismic retrofits, and replace 1,300 bridges.

FitchRatings recently described the implications of TEA 21 funding guarantees in an analysis of grant anticipation debt backed by federal transportation grants:

> *"The ability to achieve a quasi-securitization of federal surface transportation grants is predicated upon a number of important considerations. While these include the established nature of federal surface transportation grants to the states and state legislative authority to leverage these funds, equally important are budgetary firewalls for highway and transit under TEA 21."*
>
> *"..the elimination of budgetary firewalls for transit, however, could significantly reduce the margins of protection under New Jersey Transit Corporation's Certificates of Participation which are secured by FTA's Section 5307 formula funds… the current "A" rating level assumes the continuation of budgetary firewalls, the absence of which could have negative consequences for this credit."*[13]

By staying the course and continuing TEA 21's funding guarantees for formula-based programs, Congress will give comfort to the rating agencies regarding reauthorization risk, potentially allowing longer maturities and reduced interest costs. These benefits are also likely to be enjoyed in the federal highway program by broadening acceptance of grant anticipation financing, such as GARVEE bonds.

Smoothing cash flow and procurement cycles through guaranteed funding also stabilizes the often precarious financial condition of domestic bus and rail car suppliers. TEA 21's funding guarantees provide transit industry suppliers with an important incentive to invest in new products and technologies that will improve the quality, safety and cost effectiveness of public transportation, while helping agencies comply with federal mandates for Buy America, clean air and access for the disabled.

An important example identified in research thus far involves a major bus manufacturer:

> *"NABI has spent about $10 million in research and development to date on its CompoBus program. It is a revolutionary product incorporating a composite unitized body and chassis taken from the FTA-funded Advanced Technology Transit Bus Project. While the company has been very high on this project, NABI would not have undertaken the aggressive development had it not been for the stable and healthy funding levels TEA 21 has guaranteed. Such stability and predictability is critical to assessing the business risk of undertaking R&D projects in any industry, but particularly in U.S. public transport where it has been so lacking for so many years."*[14]

TEA 21 funding guarantees are providing new tools to assure timely fleet replacement and capital renewal in the public transportation industry. Formula assistance programs are the bedrock of federal grants for public transportation and the guarantees have provided a stable, reliable base of revenue for implementing asset maintenance and replacement programs.

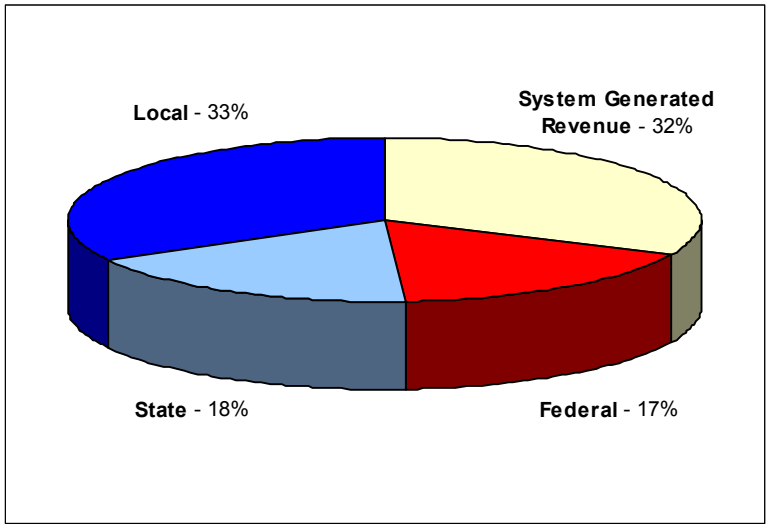
The following chapters examine how the TEA 21 funding guarantees have helped to attract new sources of stable, reliable state and local funding, and to make the capital planning and budgeting process more efficient. Not only are the TEA 21 guarantees allowing federal funds to be leveraged in the financial market, they are increasing cash flows through higher levels of non-federal matching funds and efficiencies in implementing capital programs.

Guaranteed Funding Leverages Additional Non-Federal Funding

Stable, reliable federal funding is attracting even higher levels of stable, reliable non-federal funding, largely in the form of dedicated sales taxes at the local level.

Public transportation in the United States is supported by four revenue sources – federal funds (about 17 percent), state funds (about 18 percent), local funds (about 33 percent) and system-generated income, such as fares, concessions, advertising, and real estate development (about 32 percent).[15]

CHART 1
All Sources of Transit System Revenue – 2000



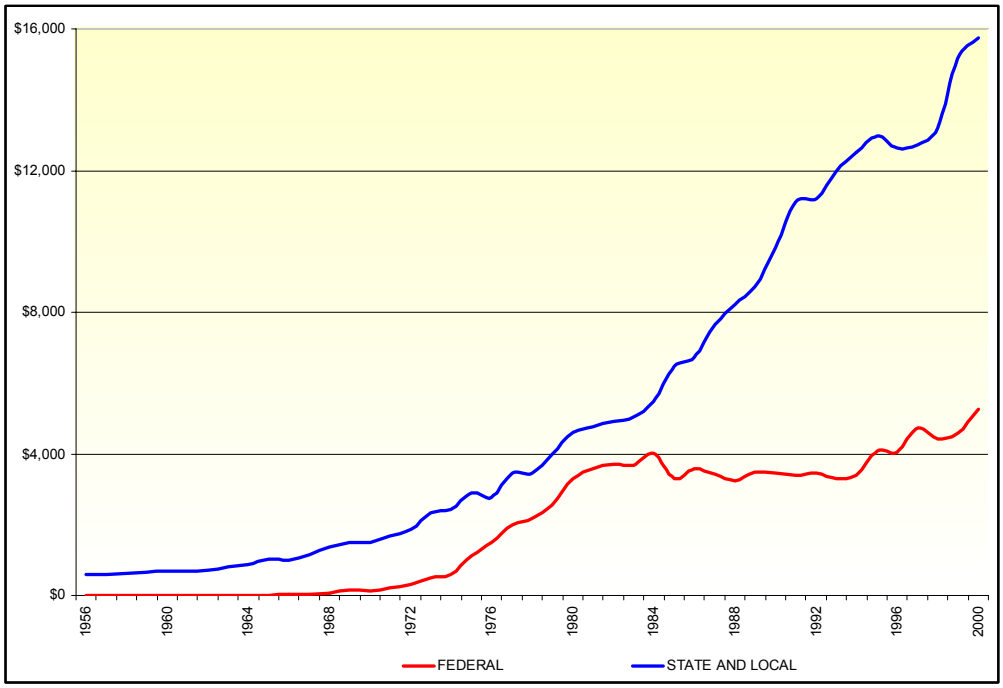
Source: National Transit Data Base

The current distribution of transit funding between federal, state and local governments was not always the case. Federal funds comprised 43 percent of public grants to mass transit systems in the early 1980's when about $8.5 billion in external support was provided. By 2000, the level of subsidies to the nation's transit systems had grown to $21 billion, but the federal share had ***declined*** to 25 percent.

Chart 2 shows the historic trend in funding for public transportation from federal and non-federal sources. The data demonstrates that federal grants for public transit have been matched to an increasing extent by state and local revenues.

When the focus of analysis is narrowed to capital investment programs, a similar picture emerges. In 2000, about 31 percent of transit outlays were for capital investment and the balance were applied to operations. Federal grants represented over 58 percent of capital revenues for public transportation in 1990; however, by 2000 the federal share had declined to 47 percent.

CHART 2
Federal and Non-Federal Funding for Public Transportation
(millions of year-of-expenditure dollars)



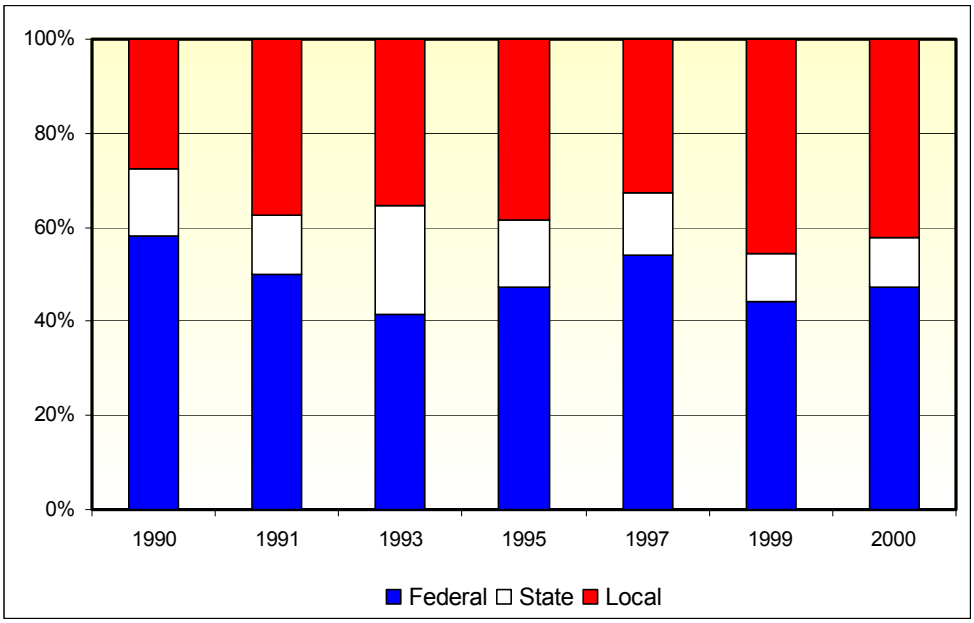
Source: National Transit Data Base and FY 2003 Federal Budget

Between 1990 and 2000, the Federal Transit Administration estimates that federal capital funding for public transportation grew at an average annual rate of 5.0 percent. Over the same time period state funding increased by an annual average of 4.2 percent, while local contributions climbed by ***11.7 percent per year***.

Chart 3 confirms that the rapid increase in federal support for capital investment in the transit industry has been more than matched by non-federal revenues – local revenues have increased their share of capital funding from about 28 percent in 1990, or about $1.25 billion, to 42 percent, or $3.8 billion in 2000.

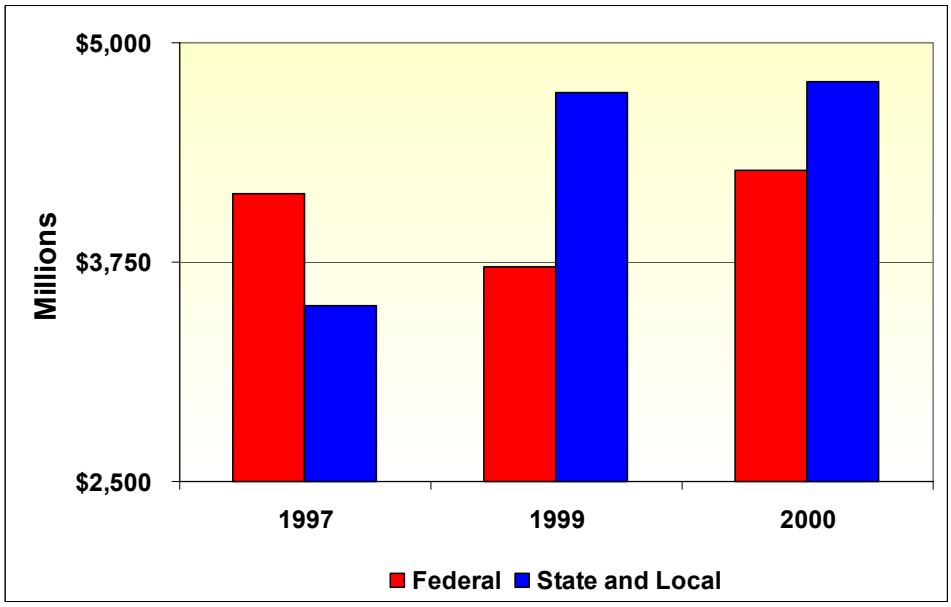
For data covering the TEA 21 authorization period, between 1997 and 2000 local funding for public transit capital programs jumped from $2.5 billion to over $3.8 billion, while federal commitments increased about $137 million and state outlays were virtually unchanged. The net results of these shifts are shown in Chart 4.

CHART 3
Funding Shares for Transit Capital Investment



Source: National Transit Data Base

CHART 4
Transit Capital Commitments Since TEA 21
(millions of year-of-expenditure dollars)



Source: National Transit Data Base

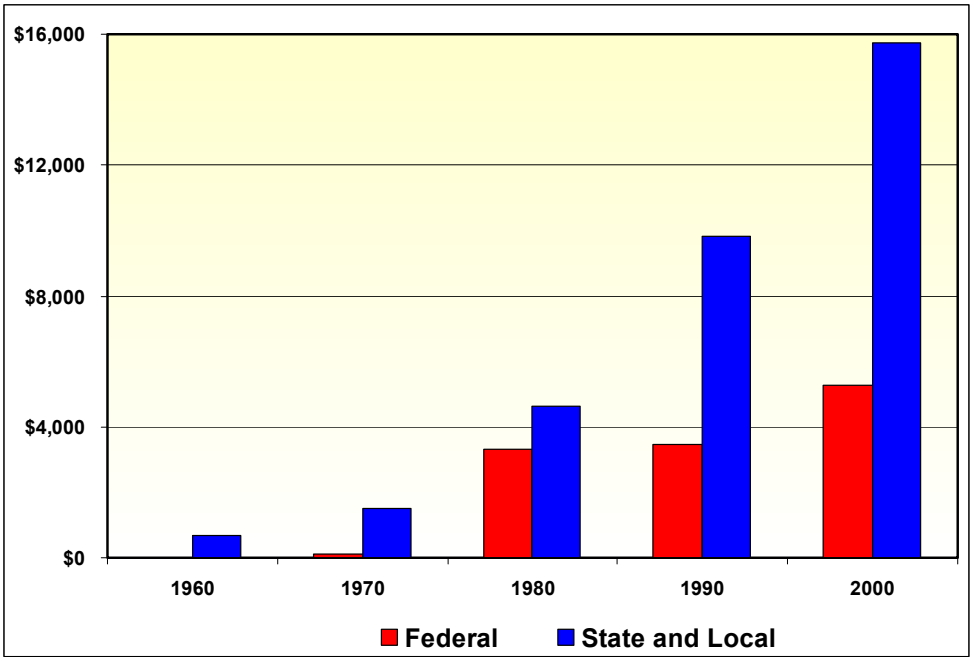
Perhaps most importantly, these trends are unlikely to change because the bulk of local revenues are derived from dedicated sources. Sales taxes alone represented over 40 percent of local funding for public transit in 2000. Dedicated sales taxes for transit generated $4.8 billion in 2000, compared to total federal support of $5.3 billion.[16]

Even as federal appropriations for public transportation increased under ISTEA and TEA 21, the federal share of all public transportation outlays has ***declined*** from 43 to 25 percent over the past 20 years. While federal support grew almost 60 percent in year-of-expenditure dollars over the past two decades, state and local support for transit operations and capital investment has grown ***240 percent***.

The ability of stable, reliable federal funding to leverage even larger increases in matching grants is one of the true success stories of TEA 21.

Chart 5 summarizes this discussion by taking snapshots of total federal and non-federal transit funding levels at the start of each decade since 1960.

CHART 5
Funding Levels for Public Transportation
(millions of year-of-expenditure dollars)



Source: National Transit Data Base

The next example shows how the guaranteed capital funding provided under TEA 21 is able to increase efficiency and cut costs through better management and planning of transit capital investment programs.

Guaranteed Funding Fosters Multi-Year Capital Programming

To prevent back-logs of deferred maintenance, public transit systems must constantly reinvest in their rolling stock and fixed facilities. The Section 5307 Urban Area Formula Assistance and Section 5309 Fixed Guideway Modernization formula programs are the funding base for these efforts.

Previously, annual federal funding fluctuations made it difficult for agencies to develop multi-year programs that sequenced capital projects efficiently in order to minimize cost, as well as inconvenience to customers during construction. Large, complex programs frequently had to be broken down into small components in order to fit available budget resources, stretching-out implementation periods and increasing costs. In some cases, grant resources had to be "warehoused" for several years in order have sufficient cash in hand to let the necessary contracts.

TEA 21's multi-year funding guarantees are revamping past practices. Comprehensive asset inventories are being undertaken and periodic renewal programs are being let according to the most time and cost-efficient schedules, rather than being constrained by the annual budget process. Contracts are being managed to take advantage of windows of opportunity in the marketplace.

The New York Metropolitan Transportation Authority (MTA) has used multi-year capital plans developed in partnership with the State of New York and the Federal Transit Administration for over two decades. The MTA studied the benefits of multi-year capital programming compared to year-to-year budgeting and reached the following conclusions:

> "*Multi-year capital programs facilitate development of a strategic financial plan, better operating budgets and will support management attention to customer service, rather than constant budget revisions in a climate of crisis. Stable, multi-year capital funding envelopes enable agencies to:*
>
> - *Protect previous investment in the transportation network;*
> - *Respond to regional and national conditions, such as changing mobility needs, economic incentives, environmental policies and new technology;*
> - *Balance their investments and address state-of-good-repair, normal replacement and system improvement needs on a scheduled basis, instead of focusing solely on emergencies;*
> - *Advance related projects concurrently, even though some may be lower priorities than others, in order to achieve economies of scale and to minimize construction-related service disruptions. Such clustering makes economic sense and minimizes inconveniences to passengers;*
> - *Have confidence that investments in major new capacity will neither be at the expense of necessary rehabilitation work nor end up as incomplete projects;*

- *Evenly schedule project awards throughout the year, which ensures a more competitive bidding climate and better contract prices;*
- *Incorporate long term cash management strategies which in turn generate additional resources to support the capital program; and*
- *Provide the financial markets with certainty that promised capital investments will be delivered, thus supporting higher bond ratings and lower borrowing costs."*[17]

The following case studies drawn from experiences in Pittsburgh, PA and Washington, DC underscore the benefits of guaranteed, multi-year capital programming recognized by the New York MTA.

Case Study: Port Authority of Allegheny County's Light Rail Construction

Pittsburgh's Port Authority of Allegheny County, programmed more than ten years of its Section 5309 Fixed Guideway Modernization funds in support of a $127-million reconstruction of the existing light rail system and a $386-million restoration of a former light rail corridor.

Almost $130 million, or one-third of the funding for the Stage II Light Rail System, is drawn from commitments of Section 5309 Fixed Guideway Modernization formula grants. Only 26 percent of this New Start project is funded from the Section 5309 New Starts program.

After the Stage II light rail system moves into revenue service, Section 5309 Fixed Guideway Modernization grants may be used to make debt service payments on bonds issued by the Port Authority of Allegheny County for fixed guideway improvements. The bonds are currently backed by Pennsylvania's Act 26 dedicated revenues. Freeing the future Act 26 funds will open new options for investing Port Authority's dedicated revenue streams in bus replacement and additional rail car modernization.

The Port Authority's dedicated revenue bonds are advancing almost $65 million of Section 5309 New Starts and Section 5309 Fixed Guideway Modernization funds to permit completion of the Stage II Light Rail Project by June 2004 – 22 months before the last federal New Starts grants are now anticipated.

Pittsburgh's Section 5309 Fixed Guideway Modernization grants are also underwriting over 70 percent of the modernization costs for the existing, Stage I system, including: electrical power distribution, signalization and a $70 million overhaul of the existing fleet of rail cars. The ability to integrate the Stage I Rehabilitation and the Stage II Light Rail programs financially and programmatically through the TEA 21 funding guarantees has allowed contracts to be let on a system-wide basis that have reduced costs, avoided future compatibility issues and permitted increases in capacity on lines that are standing room-only today. At the same time, the funding package enables all of this work, including the rail car overhaul, to be scheduled with no disruption of vital rail service to 25,000 weekday riders.

Case Study: Washington Metropolitan Area Transit Authority

On a more massive scale, the Washington Metropolitan Area Transit Authority (WMATA) is undertaking a 10-year, $2.3 billion capital renewal program to maintain a state of good repair as assets reach the end of their expected lives. These programs include bus replacement and overhauls, escalator and elevator replacement, tunnel and station maintenance, bus garage and rail shop improvements, track and structure rehabilitation and systems upgrades. WMATA's engineering analysis showed that if the program could be enlarged in the first few years to include purchase of new rail vehicles and the overhaul of existing rail cars, service levels could be improved and procurement costs reduced because of economies of scale.

Accelerating the rail car elements required over $600 million of additional funding in the early years of the program to let the contracts and meet cash flow requirements. WMATA was able to draw on its experience building the system to devise a financing strategy for the needed funding.

To complete construction of the original, 103-mile system WMATA undertook a Fast Track Program based upon an optimal construction schedule, rather than letting contracts according to projected year-to-year appropriations. At that time, a $600 million line of credit from commercial banks was arranged to support the accelerated schedule. Fast Track ultimately permitted fifteen years of construction to be compressed into less than eight years. The remaining segments were originally budgeted at $2.7 billion and the accelerated schedule was projected to reduce construction costs to $2.1 billion. The financing allowed WMATA to take advantage of favorable conditions in the construction market during the mid-1990s and to complete the necessary work at a greater savings than even the revised budget anticipated.

To support accelerating the renewal program now underway, WMATA secured a $600 million loan guarantee under the TIFIA Program created in TEA 21. The TIFIA loan structure is built upon TEA 21's guaranteed funding levels for Section 5307 Urban Area Formula Assistance block grants, Section 5309 Fixed Guideway Modernization formula funds, TEA 21 flexible funding transfers, and related matching funds from the local jurisdictions. Benefits from economies of scale, improved service levels and lower financing costs are anticipated.

TEA 21's guaranteed multi-year funding has permitted transit systems across the United States to better plan and implement their capital programs. The benefits are increased efficiency, reduced costs from contract timing and packaging, an improved balance between state of good repair and capacity enhancement projects, and less inconvenience for riders during construction.

Notes

[1] This list does not include the $500 million Full Funding Grant Agreement for the Seattle Central Link LRT that was suspended pending revisions.

[2] Memorandum from Gene Spinelli, Paine Webber, Inc., April 8, 2002

[3] Moody's Rating – *New Jersey Transit Corporation Capital Grant Anticipation Notes, Series 2000B and 2000C*, Moody's Investors Service, November 8, 2000

[4] FitchRatings – *New Jersey Transit Corporation, Capital Grant Anticipation Notes, Series 2000B and 2000C*, FitchRatings, November 9, 2000

[5] Correspondence from Scott L. Schroeder, March 18, 2002

[6] Moody's Rating – *BART SFO Extension Bonds (FTA Capital Grant) 2001 Series A*, Association of Bay Area Governments, CA, Moody's Investors Service, February 15, 2001.

[7] Approximately $154 million of the shortfall is attributable to the Los Angeles North Hollywood and the San Juan Tren Urbano projects which have encountered implementation difficulties.

[8] *Engineering News Record*, Project Financing – Bonds Shore Up Denver Megajob, April 8, 2002, page 14

[9] Standard and Poors Rating – *New Jersey Transit Corporation Capital Grant Anticipation Notes, Series 2000A*, Standard and Poors, September 5, 2000, page 2

[10] FitchRatings – *New Jersey Transit Corp Certificates of Participation Series 2000B,* FitchRatings, September 20, 2000, page 2

[11] *Section 5307 Transit Financings in the State of California: Update 2000*, Moody's Investor Services, November 2000, page 3

[12] Arizona ($185 million), Arkansas ($360 million), Colorado ($1.1 billion), Massachusetts ($1.2 billion), Michigan ($400 million), Mississippi ($200 million), New Mexico ($119 million), Ohio ($190 million) and Virginia ($400 million) – Source: FitchRatings

[13] *GARVEEs: Popularly Leveraging Federal Transportation Grants*, William Streeter and Cherian George, FitchRatings, April 30, 2002, page 10

[14] Correspondence from Cliff Henke, NABI, March 27, 2002

[15] National Transit Data Base, 2000 data

[16] National Transit Data Base, 2000 data

[17] Internal Memorandum provided by Gregory S. Kullberg, Director, Capital Program Budgets & Administration, New York Metropolitan Transportation Authority, undated

About the Author:

Jeffrey A. Parker is a consultant specializing in transportation finance. Since 1981, Mr. Parker has developed financial strategies for New Start fixed guideway investments, intermodal programs and toll facilities. He serves as a technical advisor on design/build procurements for highway and transit "mega-projects" and assists the World Bank on transport project finance. Mr. Parker has advised the Federal Transit Administration on financial issues affecting projects funded under Full Funding Grant Agreements and authored numerous guidebooks and policy studies on innovative finance, turnkey procurement and financial management oversight.