

A. INTRODUCTION

This chapter discusses the funding of Metropolitan Transportation Authority (MTA) Capital Programs and operations. The chapter first reviews the MTA Capital Program funding process and then examines MTA's current Capital Program and operations funding sources. Finally, the chapter discusses MTA's 2000-2004 *Capital Program* and how it will be funded.

B. HISTORY OF MTA CAPITAL PROGRAM FUNDING

In 1980, MTA—recognizing that capital infrastructure investments had been seriously underfunded for many years—completed a systematic analysis and assessment of the capital requirements of the transit systems. The *Staff Report of Capital Revitalization for the 1980's and Beyond* was issued, assessing the capital infrastructure needs of the systems over a 10-year period and presenting a strategy to restore the systems to a state of good repair. The report also proposed funding for new routes, facilities, and system improvements, in recognition that service improvements were a necessary component to ensure an economically sound transit system. The capital assessment was not the first long-range plan of its kind. Previous 10-year Capital Programs had been prepared. However, the 1980 report was submitted to the state legislature and served as the basis for new legislation to ensure the long-term funding of transit infrastructure investments.

To close the gap between available and required capital funding, the state legislature passed the Transportation Systems Assistance and Financing Act of 1981. The 1981 Act required that MTA submit to a state review board—the MTA Capital Program Review Board (CPRB)—for approval of successive 5-year capital programs, the first of which was submitted on October 1, 1981.

In accordance with the Act, as amended, and with corresponding legislation, MTA has submitted and obtained approval for three 5-year Capital Programs covering the periods 1982-1986, 1987-1991, and 1992-1996. In 1995, new legislation established a new 5-year planning period from 1995-1999. As a result, the last 2 years of the 1992-1996 program were incorporated into the new plans. Thus far, investments worth \$32 billion and the funding to pay for them have been authorized.

The 2000-2004 Capital Program was originally approved by the MTA Board of Directors on September 29, 1999 and further revised on April 19, 2000. The CPRB approved the plan on May 5, 2000.

The focus of the initial Capital Programs was a massive program of rescue and recovery of the transportation system. Investments were necessarily focused on both the restoration and maintenance of the existing network, thus enabling MTA agencies to make major strides toward bringing all or substantial portions of their assets to a state of good repair. Replacing component

systems according to useful-life cycles, rather than when they are failing, is increasingly the standard practice.

During the 1990's, MTA began to get some breathing room not only to continue the restoration of the system, but also to progress significant improvements to enhance services for riders. The capital program put in place an entire new fare collection system supporting revolutionary new fare policies beneficial to transit users. Also, current installation of new signaling technologies and central control for New York City Transit (NYCT) will vastly improve the reliability and convenience of the system.

The financial support from MTA's funding partners, together with the resources directly available to MTA, have allowed MTA to implement fully funded 5-year capital programs since 1981, a rare feat in the transit industry. Local funds, which have historically provided for about 65 percent of the financing for capital investments since 1982, are approved by the MTA Board and the New York State legislature.

MTA's position is in sharp contrast to many other transit agencies, in which: 1) given the lack of available, dedicated resources, many transit systems can only commit funds one to two years into the future; 2) the amount of federal aid is proportionately higher than the local aid; and 3) federal aid is often the only secure financing that is available.

THE MTA CAPITAL PLANNING PROCESS

Prior to the preparation of each 5-year Capital Program (excluding the 1995-1999 plan, which was a 3-year extension to the 1992-1996 plan), MTA prepares a 20-year assessment which reviews the long-term capital infrastructure needs of each of its divisions. These assessment reviews include an update of the condition of capital assets; a projection of the level of investment required to reach or maintain the systems in a state of good repair and to meet future demand; and a statement of investment priorities and strategies. The 20-year needs assessment serves as the foundation for developing the 5-year plans. It assesses the condition of agency capital assets and develops investment strategies that reflect the agency's long-term service plans.

The 5-year capital program is a product of a 20-year needs assessment that must be prepared by all of MTA's operating agencies. Projects are included in the capital program based on several guidelines, including continuity with the 20-year need assessment and the agency's Strategic Business Plan and long-term investment strategies. There must be a clear rationale and justification for the project; the project must meet analytical requirements, such as cost-benefit analysis and asset condition assessments. In addition, the project must be fully scoped, consistent with MTA capital eligibility criteria, and able to be initiated projects prior to the middle of the last year of the program. At the same time that projects are defined and the program is developed, MTA also develops a 5-year funding envelope that is used to establish the overall size of the program. When developing a funding envelope, MTA similarly assesses not only the potential availability of resources, but also the agency's ability to initiate and complete the proposed construction program.

At the completion of the planning process, the proposed 5-year capital program is submitted to the MTA Board for approval and then forwarded to the CPRB. Working with the New York State legislature and the Governor's office, CPRB helps to identify the funding to be dedicated to implementing the 5-year plan. Any legislation required to establish the funding authority is approved at that time.

MTA is required by state law to have a Capital Program Oversight Committee (CPOC) that enables the MTA Board to respond to capital program development, implementation, and management issues in a timely and responsible manner. This committee of MTA Board of Director members is responsible for monitoring the availability of capital funds, contract awards, expenditures, and the progress of capital projects. MTA utilizes the services of an independent engineering firm to assist with the technical oversight of the capital program.

Since passage of the Transportation Systems Assistance and Financing Act of 1981, New York has maintained high-quality and safe regional transit systems. The state has consistently approved legislation dedicating funds to support transit. To provide a solid foundation for continued economic growth, MTA has invested \$29.9 billion from 1982 through June 1999 to rebuild and expand its transit network. As a result, transportation services in the region have improved dramatically, customers are more satisfied, and ridership has grown.

PLANNING FOR MAJOR CAPITAL TRANSIT INVESTMENTS

In 1993, MTA established the Long Range Planning Framework process to develop a unified program of Network Expansion projects. While the focus of the agencies' capital programs continued to be achieving a state of good repair and maintaining the existing network, there was a need to plan for major capital improvements and system expansions to the subway, bus, and commuter rail systems to meet the future transportation needs of the region.

Timing was critical as the next 20-year need assessment and 5-year capital programs would soon be planned and developed. Also under way or ready to begin were a number of planning studies at MTA, the Long Island Rail Road (LIRR), Metro-North Railroad (MNR), NYCT, and the Port Authority of New York & New Jersey. These studies were examining the potential of extending rail service to underserved areas, reducing travel times, alleviating overcrowding, improving connectivity, and reducing auto traffic. The studies that led to East Side Access were part of this process.

Over the past 6 years, bi-weekly coordination among study managers has been invaluable to ensuring that planning studies are analyzed and evaluated consistently. Common regional travel forecasts, capital planning assumptions, and Board-approved evaluation criteria were used to ensure adherence to Federal Transit Administration (FTA) guidelines so that future design and construction would be eligible for federal funding.

CAPITAL REVENUES FOR PAST CAPITAL PROGRAMS

MTA receives, manages, and invests federal funds, state grants, and other revenues, and is empowered to issue bonds, notes, and other obligations. MTA is also responsible for managing the investment of all funds. Between 1982 and 1999, the MTA capital program has been supported by a variety of funding sources, including federal, state, and local aid; bonds; other debt obligations; and a number of other sources. During this period, approximately 65.2 percent of the funding came from non-federal sources and 32.8 percent from federal sources (see Table 22-1).

FEDERAL FUNDING

Federal funding accounts for almost 33 percent of the capital program—approximately \$10.7 billion. These funds came from a variety of federal programs, including approximately \$8.76 billion in federal Title III funds. Title III funds for transit consist of formula Section 5307 and 5309 (Fixed Guideway) funds as well as discretionary Section 5309 (New Start and Bus) funds.

Table 22-1
MTA Capital Program Funding
1982-1999 (Dollars in Millions*)

Fund Sources	1982-1994	1995-1999	Total
Federal Title III	\$5,672.3	\$3,090.9	\$8,763.2
Federal Title I	190.1	345.0	535.1
Westway funds	1,232.4	184.1	1,416.5
City of New York	2,071.0	1,041.0	3,112.0
MAC (local)	680.0	245.0	925.0
State funds	2,387.4	98.0	2,485.4
MTA bonds	4,682.5	5,244.6	9,927.1
Other	2,667.9	1,564.2	4,232.3
Pay-as-you-go	501.3	740.0	1,241.3
Total	\$20,084.9	\$12,552.8	\$32,637.7
Note: * Excluding MTA Bridges and Tunnels.			

Additionally, 1991 Intermodal Surface Transportation and Efficiency Act (ISTEA) legislation permitted state and local governments to transfer a portion of federal highway Title I funds to transit projects, such as the Surface Transportation Program (STP) and Congestion Mitigation and Air Quality (CMAQ) funds. MTA secured approximately \$535 million in CMAQ and STP funds from 1991-1999. From 1982 to 1999, approximately \$1.4 billion was received as a result of a trade-in of the Westway (Route 9A) highway project, with \$183 million of this amount coming from Interstate Transfer Transit funds.

STATE AND LOCAL AID

New York City contributions have averaged \$160 million per year during this period. Within any 5-year plan, city contributions have increased or declined around this average to reflect city priorities contained in its Capital Needs Statement and financial plans. The city generally issues bonds to meet its share of capital project expenditures. In addition, the Municipal Assistance Corporation for the City of New York (MAC) provided \$925 million (3 percent) in support of rebuilding NYCT's infrastructure.

New York State support for capital investments totaled \$2.5 billion in the 1982-1999 period. The mechanisms by which funds are provided have varied with time. Funding has come in the form of direct state appropriations and from bonds supported by direct payments made by the state (Service Contract bonds).

BOND AND OTHER DEBT OBLIGATIONS

Since 1982, MTA has issued \$ 9.9 billion in bonds. Bonding authority is provided through state legislation that includes a cap on the amount of bonds that can be issued. Debt service on these bonds is paid from operating revenues that are described in more detail in the "Funding MTA Operations" section below. These bond sources include:

- **MTA Revenue Bonds.** These are bonds backed by funds derived from fares, concessions, non-federal operating subsidies, and expense reimbursements.

- **Dedicated Tax Fund (DTF) Bonds.** In support of the 1992-1996 Capital Program, state law required that a portion of the revenues derived from certain business taxes imposed on petroleum businesses, as well as certain other special taxes and regional sales taxes, be deposited into the MTA Dedicated Tax Fund, which is then subject to appropriation by the state legislature. These revenues back bonds issued for capital projects. No DTF bonds were issued prior to 1994.
- **Triborough Bridge and Tunnel Authority's (TBTA) General Purpose Revenue Bonds and Special Obligation Bonds.** The General Purpose Revenue Bonds are supported by the net revenues of TBTA's seven bridges, two tunnels, one parking garage, and the New York Coliseum—a convention and trade show facility. The Special Obligation Bonds are supported first by the mortgage recording taxes (see below) and thence by revenues remaining after debt service on the General Purpose Revenue Bonds. These revenues are also used to provide direct operating funding as well as to support debt financing.
- **Mortgage Recording Tax Bonds.** Since 1987, as required by state law, New York City and the suburban counties within the MTA service region have allocated revenues to MTA that are derived from mortgage recording taxes. These revenues are used to back bond sales in support of the capital program.
- **TBTA Beneficial Interest Certificates.** These certificates, issued for the purchase of buses, represent proportionate interests in the principal and interest components of the base rent amount, which is payable by TBTA from TBTA net revenues.

MISCELLANEOUS FUNDS

Funding from other sources provided \$5.47 billion of the revenues invested in capital improvements. These fund sources derive from investment, innovative financing, leasing assets, and other local governmental entities. Although the composition of these funds changes from program to program, they have, in total, provided a consistent, stable source of revenue over time. Chief among the miscellaneous fund sources are:

- **Investment Income.** The MTA Capital Program derives substantial income from invested MTA funds, including proceeds from sale-leaseback agreements, proceeds from real estate sales, transfer of earnings from TBTA debt service reserves, and transfers from commuter railroad operating budgets.
- **Asset Sales and Leases.** This fund source includes the generation of revenues from the sale or lease of MTA assets, which from 1982-1994 came from East Side Airline Terminal property disposal and rolling stock assets. For the 1995-1999 program, opportunities for sale and leaseback of assets included the sale of the New York Coliseum and the sale/leaseback of rolling stock and other facilities, such as LIRR's Hillside maintenance facility.
- **Developer Contributions.** Throughout the history of the MTA capital program, private property developers within the city have been required to make improvements to the transit system. More than \$50 million has been invested by these developers to enhance the transit system. Planned development in Times Square and at 72nd Street would include transit facilities paid for by developers.
- **Operating-Capital Transfer (pay-as-you-go funding).** This source of funds is a direct transfer from the operating budget of operating revenues and subsidies. This capital contribution relieves long-term pressure on the operating budget by reducing borrowing needs and related

debt service costs over time. The operating-to-capital transfer was used only to support the commuter rail programs in the past, but in the 1995-1999 plan, this source is also supporting the NYCT capital program and was renamed to pay-as-you-go.

- Other Funds. Funding is also generated from easement sales, payments from the State of Connecticut to cover its share of the capital cost of investments, developer contributions, settlements, and funds from other state or local sources.

THE 1995-1999 CAPITAL PROGRAM

All capital programs are formulated with current and foreseeable financial conditions in mind. In 1995, MTA had to make some difficult decisions regarding how it would pay for its operating and capital expenditures over the next few years. In doing so, it recognized that less reliance on subsidies would improve MTA's long-term financial outlook. Therefore, a 5-year operating financial plan and a capital program were approved for 1995-1999, both of which brought MTA closer to self-sufficiency.

MTA's 1995-1999 Capital Program totals \$12.55 billion. The share of federal funds supporting this program totals 29 percent, while 71 percent comes from state, local, and MTA resources. MTA successfully responded to the challenge to become more self-sufficient and reversed the ratio of capital funding sources from 60 percent subsidy and 40 percent self-generated to more than 60 percent self-generated and less than 40 percent subsidy. Even though federal, state, and local sources declined in percentages when compared with previous programs, the federal, state, and local governments have remained loyal partners to MTA's goal of maintaining and improving the metropolitan region's transportation infrastructure.

FUNDING MTA OPERATIONS: 1982-1999

Hand in hand with capital investments, New York State and other MTA funding partners have repeatedly shown their commitment to mass transportation through the continued support of the operations of MTA. Section 18-b of the Transportation Law established the State Transit Operating Assistance (STOA) Program. The overall goal of STOA is to assist in the provision of adequate transit service at a reasonable cost to the transit rider and government. Funding for the STOA program comes from State General funds and dedicated tax funds. Dedicated tax funding is provided from legislatively enacted taxes levied in New York State, which are in part or in whole dedicated to transit operating assistance and debt service. The dedicated tax portion of the STOA program is appropriated from the Mass Transportation Operating Assistance Fund (MMTOA) created by Section 88-a of the State Finance Law and State Dedicated Mass Transportation Trust Funds (SDF). An example of the state's commitment to public transit is that since the 1983-1984 State Fiscal Year, \$14.6 billion in state funds have been appropriated for MTA by the state legislature through section 18-b, MMTOA and SDF (see Table 22-2).

Table 22-2

**Summary of State Public Transportation Funds for MTA Appropriated
by New York State—1983/1984-1998/1999 State Fiscal Years**

State General Fund Section 18-b	Mass Transportation Operating Assistance Fund (MMTOA)	Dedicated Mass Transportation Trust Fund (SDF)	Total State Funds
\$2,412,680,400	\$10,883,513,000	\$1,328,453,000	\$ 14,624,646,400

Since the 1980's, a mix of operating revenues has supported MTA operations. The breakdown of these revenues for the 1983-1998 time period is:

- Passenger revenues = 50 percent;
- Other operating revenues = 3 percent;
- State and local sources = 39 percent;
- Bridge and tunnel surpluses = 6 percent; and
- Federal sources = 2 percent.

Passenger revenues are derived from fares, while other operating revenues come from advertising, interest, LIRR freight, rents, and concessions.

FEDERAL, STATE, AND LOCAL ASSISTANCE

Federal, state, and local assistance is provided from the following fund sources:

Appropriations and Grants

Subject to annual appropriations, federal and state funds have been received to support operations. New York State operating assistance is usually matched by contributions from New York City and the seven other counties within MTA's service area. Since 1997, all federal aid has been used to support capital expenses and not operations.

MMTOA

Since 1980, the following revenue sources have been available to fund the operations of MTA:

Petroleum Business Tax (PBT). A legislatively allocated portion of the business privilege tax is imposed on petroleum businesses in New York State. The amount of tax available is determined by the quantity of various petroleum products refined or sold in the state.

Sales Tax. A $\frac{1}{4}$ percent sales and use tax is imposed within the MTA service region.

Long Lines and Franchise Taxes. A legislatively allocated portion of two taxes imposed on certain transportation and transmission companies, such as local telephone companies, helps fund MTA operations. The two taxes are: (a) an annual franchise tax based on the amount of the taxpayer's issued capital stock; and (b) an annual franchise tax on the taxpayer's gross earnings from all sources calculated to be in the state, based on a statutory formula.

Temporary Business Tax Surcharge. MTA receives a temporary surcharge on the portion of the franchise tax on certain corporations, banks, insurance, utility and transportation companies attributable to business activity carried out within the MTA service region. This surcharge, which was imposed as a temporary tax, was initially levied in 1982. It has been extended seven times and is currently scheduled to expire by the end of 2001.

Dedicated Tax Fund Petroleum Business Tax (PBT) Receipts

Since 1993, the state legislature has allocated, subject to annual appropriations, an additional portion of the PBT revenues to support transit operations. MTA receives 34 percent of the annual allocation of these revenues. These funds do not flow through the MMTOA accounts listed above.

Mortgage Recording Taxes (MRT)

Revenues from this source, collected in the MTA service region, can be used for operating, capital, debt service, and reserve requirements for MTA operating agencies and MTA Headquarters. MRT-1 is collected at the rate of ¼ percent of the debt secured by most real estate mortgages and has been dedicated to MTA since its inception. After MTA headquarters expenses are subtracted, 55 percent of the remaining MRT-1 revenues are allocated to NYCT. Of the remaining 45 percent, the minimum of the remaining balance, or the first \$20 million, is allocated to the State Highway Program and the rest is distributed to the commuter railroads.

MRT-2, which was first dedicated to MTA in 1987, is collected at a rate of a ¼ percent tax imposed on most mortgages secured by real estate and improved or to be improved for structures containing one to six dwelling units within the MTA service region. MRT-2 revenues are first allocated to Dutchess, Rockland, and Orange Counties on a formula basis. The remaining balance can be used by MTA to satisfy MRT bond debt service requirements.

Urban Tax

The City of New York provides revenues to NYCT derived from a mortgage recording tax of 5/8 percent levied on certain real estate mortgages and a 1 percent property transfer tax.

Station, Maintenance, Operation, and Use Assessments

Each year, MTA bills the City of New York and the suburban counties for the cost of operating and maintaining stations within their jurisdictions. The amount billed to the suburban counties is based on a formula established by the state legislature and is adjusted annually based on the change in the regional consumer price index, except in New York City, where it is based on actual expenses associated with commuter rail stations.

Direct State Grants

New York State provides operating subsidies to MTA which are matched by the City of New York and the suburban counties.

Other Subsidies

MTA also receives revenues from the Connecticut Department of Transportation in support of MNR's New Haven Line.

INTERAGENCY SUBSIDY—MTA BRIDGE AND TUNNEL TOLLS

New York State law requires MTA Bridges and Tunnels (B&T) to transfer its annual net operating surplus to MTA and to MTA NYCT. Toll surpluses are defined as equal to the amount remaining from tolls and other operating revenues after payment of operating, capital, administration and other bridge and tunnel-related expenses. In 1998, B&T transferred \$645 million to the transit and commuter rail systems.

THE 1995-1999 FINANCIAL PLAN

As noted above, MTA recognized in 1995 that support from federal, regional, and local governments was on the decline and took a large step toward self-sufficiency by approving a 5-year plan that would maintain the fiscal stability of MTA. Key principles established to guide the financial plan included maintaining service quantity and quality that would encourage regional

growth; maintaining the integrity of the Capital Program; maintaining a customer service focus; sharpening the focus on safety; and meeting the mandate to be self-sustaining.

The 5-year financial plan relies on the implementation of \$3.3 billion in cost reduction measures and certain assumptions regarding ridership levels and traffic volumes. Federal funding allocations that would have been used for operating subsidies are currently being used to help fund the capital program and no longer support the operating budget. With the adoption of the 1999 operating budget, MTA had achieved its goal to reduce expenses.

PASSENGER REVENUE HISTORY

Over time, MTA has adjusted fares to meet the agency's goal of self-sufficiency and of having a fully funded capital and operating program. Fares on the transit system have been increased seven times since 1975 and commuter rail fares have been increased four times since 1982. Despite these fare increases, the cost for using MTA services, when adjusted for inflation, is lower than it was in 1975 for transit services and 1982 for commuter rail services. Furthermore, the introduction of the Metrocard revenue collection system has resulted in a decline in the average cost for full fare customers.

EXAMPLES OF INNOVATIVE FINANCING

MTA has consistently employed innovative financing tools as a means to support capital investments, generate revenues, and reduce operating costs and debt service expenses. MTA's capital construction program is probably the largest public transportation rebuilding effort in U.S. history. MTA has aggressively managed its capital program to reduce its reliance on federal, state, and local subsidy by using a variety of innovative funding techniques. Innovative funding techniques include:

- Dedicated regional taxes;
- Mortgage recording taxes levied against lenders;
- Use of toll credits in lieu of local match;
- Proactive restructuring of debt;
- Sale/leaseback transactions for facilities and equipment;
- Swap options;
- Major issuer in the bond market;
- The sale of real estate assets; and
- Rental payments from Grand Central Terminal.

C. MTA'S 2000-2004 FINANCIAL PLAN

The 2000-2004 plan continues MTA's successful strategy of using a wide variety of funding sources to finance its capital and operating needs. The plan fully integrates the three critical elements that chart the course for MTA over the next 5 years. These elements include:

1. The Strategic Business Plan
2. The 2000-2004 Capital Program
3. The 2000-2004 Operating Plan

The Strategic Business Plan continues MTA's goals of improving customer satisfaction, increasing safety, reducing costs, and improving efficiencies. The 2000-2004 Capital Program focuses MTA's investments on maintaining the agency's extensive transportation assets and expanding the transportation network in the New York Region. The 2000-2004 Operating Plan

focuses on expanding and improving service, increasing safety, and continuing the non-service-related cost reductions that were a hallmark of the 1995-1999 Plan.

INTEGRATED FINANCING OF CAPITAL AND OPERATING NEEDS

MTA has developed an integrated approach to financing operations and capital investments. The 5-year capital program is matched to specific fund sources, with funds not dedicated to specific projects “pooled.” By running a cash flow of the projects funded with these pooled revenues, financial investment strategies are developed. Capital and operating funds are then joined together to develop a balanced 5-year financial plan.

Pursuant to Article 9 of the New York State Public Authorities Law, MTA is required to submit operating and capital construction budget information to the Governor, and to the chairman and ranking minority members of each of the Senate Finance Committee and Assembly Ways and Means Committee, not less than 60 days before the commencement of each fiscal year. This budget information sets forth the estimated capital construction and operations receipts and expenditures for the current and next succeeding fiscal year, together with actual receipts and expenditures for the last completed fiscal year. The budget is required by law to be self-sustaining.

MTA, with the help of its funding partners, will commit \$30.724 billion in operating funds and \$18.062 billion in capital funds for a total of \$48.786 billion to achieve the goals of the 2000-2004 Capital and Operating Plan. Funds for this ambitious program of investments will be derived from a variety of sources, described previously, that have been remarkably stable over nearly a 20-year period.

THE 2000-2004 CAPITAL PROGRAM

The 2000-2004 Capital Program was approved by the CPRB on May 4, 2000. The program will be the fifth plan of work undertaken by MTA to continue the progress of rebuilding the region’s mass transportation network and improving that network to achieve even greater reliability and enhance service levels.

After almost 18 years of effort, MTA now finds itself poised for the next step: physically expanding its transportation network to add needed capacity for the growing regional economy. The 2000-2004 capital program supports three imperatives facing MTA at the turn of the century: finishing the systemwide restoration job begun in 1982; preserving the investments already made through cyclical replacement of assets; and improving and expanding the MTA transportation network to enable continued growth of the New York City region.

The 2000-2004 Capital Program totals \$18.062 billion (including MTA Bridges & Tunnels) for the 2000-2004 period (see Table 22-3). The capital investments approved by the MTA Board in the MTA 2000-2004 Capital Program represent a continuation of the mission to rehabilitate the system and maintain the assets previously restored. Accordingly, 69 percent of the program is dedicated to ongoing rebuilding and replacement of MTA facilities, infrastructure, and rolling stock. As in the 1995-1999 program, improvements to the existing system will be made (such as building new passageways between stations), and 11 percent of the 2000-2004 program is dedicated to this work.

Table 22-3
MTA 2000-2004 Capital Program Summary
(Dollars in Millions)

Agency	Component	Cost
NYCT	Rolling Stock	\$2,484
	Infrastructure	7,697
	Total NYCT	10,181
LIRR	Rolling Stock	1,013
	Infrastructure	1,134
	Total LIRR	2,147
MNR	Rolling Stock	521
	Infrastructure	801
	Total MNR	1,322
Subtotal NYCT, LIRR, MNR		\$13,649
Network Expansion		3,413
MTA Bus & Rail Total		\$17,062
Bridges & Tunnels		1,000
MTA Grand Total		\$18,062

The balance of the program—19 percent—is for major capital improvements and initiatives. The planning begun in the 1995-1999 capital program to expand the MTA system is now reaching the bricks and mortar stage. The plan would see significant construction progress toward the completion of the Preferred Alternative of East Side Access. *A total of \$1.05 billion has been allocated for the design and early construction phases of the Second Avenue Subway in Manhattan, a project suspended many years ago. The design and construction of transit access to La Guardia Airport are also included. Planning and design for three additional new routes will also be progressed. The new routes are MNR access to Penn Station, new rail links to the Wall Street area, and an extension of the No. 7 line to the Javits Center area. Funds totaling \$150 million were also included to support a broad range of smaller initiatives to enhance customer amenities and services throughout the region, including planning and environmental studies for a third track along the LIRR Main Line between Bellerose and Hicksville. Additionally, \$2 million has been allocated for a study of ways to improve pedestrian connections between the proposed East Side Access Sunnyside station and transit stations at Queens Plaza and Queensboro Plaza.*

The capital program represents capital investment strategies that would protect and preserve the investments already made, while allocating additional funding to high-priority expansion projects that are necessary for the continued economic health of the region. In addition to the huge investments in the existing system that continue to be necessary, it is vital to progress investments to expand service so that the New York region can compete more effectively in a changing and challenging global economy.

FUNDING THE 2000-2004 CAPITAL PROGRAM

The funding for the 2000-2004 Capital Program continues to rely on the same types of funding that supported the 1995-1999 Capital Program. Table 22-4 identifies the anticipated resources

Table 22-4
2000-2004 Capital Program
Funding Source Projections
(Dollars in Millions)

Funding Source	Plan
Federal Title III	\$4,709
Federal Title I	275
City	530
Coliseum	145
State of New York	1,600
Program Income	150
TBTA Investment Income	95
TBTA Pay-as-You-Go	60
Carryover	225
Debt Restructuring	3,011
Bonds	\$7,262
Total MTA	\$18,062
Bridges & Tunnels	(\$1,000)
Total Transit and Commuter	\$17,062

to fund the 2000-2004 bus and rail capital program. The program includes \$17,062 billion for transit and commuter rail investments, and an additional \$1 billion for bridges and tunnels. A detailed explanation of each funding source follows the table.

FEDERAL TITLE III—\$4,709 MILLION

The Federal Transportation Equity Act for 21st Century (TEA 21) was authorized by Congress in 1998. This bill creates transit funding authorization for the 6-year period of 1998-2003. Not only did the bill authorize more money over the 6-year period for transit than was authorized under the previous ISTEA bill, it also guaranteed levels of funding by year so that grantees could count on an annual minimum level. MTA projections of this funding are based on historical percentages of the federal allocation formulas that measure population density, revenue vehicle miles, and passenger miles. For the fifth year of the plan, 2004, which is not covered in TEA-21, the funding levels projected for 2003 are assumed. New Start funding is also included in this category and incorporates the TEA-21 earmarks for East Side Access and Second Avenue Subway plus additional federal New Start funding assuming a 50 percent federal participation over the life of the projects (though not necessarily during the 2000-2004 period).

FEDERAL TITLE I—\$275 MILLION

TEA 21 also provides for federal highway funding to be transferred to transit for certain types of projects. This program is administered by the state and MTA is expecting to retain the same mandate as the 1995-1999 capital program, which allocated \$55 million per year to CMAQ and STP MTA capital projects.

CITY—\$530 MILLION

The allocation from New York City is \$106 million per year, which corresponds to the city's Capital Needs Statement. The city sells bonds to help pay for NYCT projects chosen by MTA through an annual letter agreement process.

COLISEUM—\$145 MILLION

MTA sold the Coliseum to Related Properties in 1999 for \$345 million. Of this total, \$200 million is allocated to the 1995-1999 Capital Program and the remaining \$145 million is available for the 2000-2004 program. Under a memorandum of understanding between MTA and NYCT, the proceeds from the sale will be given to New York City, which will sell bonds in the same amount to pay for NYCT capital projects through a letter agreement process.

STATE OF NEW YORK—\$1,600 MILLION

Some of the proceeds from the New York State Transportation Infrastructure Bond Act of 2000 were to be used to support a portion of MTA's Capital Program. With the voters' disapproval of the Bond Act, MTA will resubmit the plan pursuant to the Capital Program Review Board's approval resolution, dated May 4, 2000.

PROGRAM INCOME—\$150 MILLION

Income from invested non-bond MTA funds, such as deposits of proceeds from previous sale-leaseback agreements, real-estate sales, and operating budget contributions, will be generated for the benefit of the capital program. The amount is an estimate based on projected account balances for the 2000-2004 period, including all expected drawdowns.

TBTA INVESTMENT INCOME—\$95 MILLION

Income is generated from TBTA debt service reserves and other TBTA deposits, and is partially transferred to the MTA capital program. The funding is the same amount as what was generated for the 1995-1999 Capital Program.

CARRYOVER—\$225 MILLION

Carryover comprises funds from previous capital programs that are no longer needed to support the completion of capital work. Sufficient funds have been left in the previous programs to cover any unforeseen events that may affect work under way.

DEBT RESTRUCTURING—\$3,011 MILLION

MTA has developed a plan to generate \$3 billion in additional resources without increasing annual debt service costs. This plan creates a new MTA corporate debt structure. Various elements in this restructuring would generate \$2 billion in new bond proceeds and release \$1 billion in reserve funds that will be used to pay for new capital projects. This will result in a \$1.2 billion reduction in debt service payments between 2000-2004.

BONDS—\$7,262 MILLION

New bonds to support the proposed capital program would use the new simplified credit structure described above and would be backed by agency operating revenues and subsidies in accordance with the 2000-2004 financial plan.

MTA continues the strategies implemented in the 1995-1999 plan to meet the mandate to be self-sustaining. As demonstrated in Table 22-5, the capital program continues its reliance on local funds.

Table 22-5

Capital Program Funding by Plan Period (Dollars in Billions)

	1982-1994	Percent	1995-1999	Percent	2000-2004	Percent	1982-2004	Percent
Federal	\$7.044	35	\$3.770	30	\$4.984	29	\$15.798	32
Local	13.040	65	8.783	70	12.078	71	33.901	68
Total Funds	\$20.084		\$12.553		\$17.062		\$49.699	

THE 2000-2004 OPERATING PLAN

The 2000-2004 operating plan would cover MTA's operating expenses over the next 5 years, including the debt service required to finance the 2000-2004 capital commitments. These revenue sources were described previously in the section on Funding MTA Operations: 1982-1999. Current operating plan revenue sources are detailed in Table 22-6.

FINANCING THE 2000-2004 CAPITAL AND OPERATING PROGRAM

The combined 2000-2004 Capital and Operating Plan submitted to the Capital Program Review Board has a \$4.437 billion, or less than 10 percent, gap. MTA's strategy for closing the gap includes \$911.5 million of non-service-related expense reduction, innovative financing initiatives that will reduce capital program debt service by \$1.163 billion, and new governmental assistance and other resources totaling \$2.362 billion. These gap-closing strategies build off of MTA's traditional approach of fully funding its capital and operating needs by securing increased/new revenue sources, leveraging internally generated revenues, and controlling costs through operating and financing initiatives.

D. FUNDING THE PREFERRED ALTERNATIVE

CAPITAL COSTS

Capital costs take into account only the costs associated with the system improvements required for each option of the Preferred Alternative. As outlined in Table 22-7, capital costs for the Preferred Alternative are estimated at \$4.7 billion for Option 1 and \$4.3 billion for Option 2. Total capital costs include costs of construction, costs for engineering and management, costs to purchase additional rolling stock, and costs for property acquisitions and easements required for the project.

OPERATING AND MAINTENANCE COSTS

For the year 2012, the operating and maintenance cost for the East Side Access Preferred Alternative is estimated at \$100.5 million in 1999 dollars. Operating costs include the following:

- Maintenance of a new Sunnyside Station and the new LIRR station and platforms in Grand Central Terminal;
- Maintenance of track, signals, power, and communications on the new right-of-way and tunnel sections;

Table 22-6

Funding the 2000-2004 Capital and Operating Plan
(Dollars in Millions)

	Transit Authority	Commuter Railroads	Total*
Internally Generated Operating Revenues			
Fares	\$10,070.2	\$3,488.1	\$13,558.3
Bridges and Tunnels Operating Surplus	814.2	903.2	1,717.4
Other	929.6	391.0	1,320.6
Subtotal—Operating Revenues	11,814.0	4,782.3	16,596.3
City, Counties, States, and Other Regional Taxes			
Mortgage Recording Tax	93.3	452.5	545.8
Station Maintenance	0	629.6	629.6
Local Operating Assistance	790.3	146.3	936.6
State of Connecticut	0	173.5	173.5
Urban Tax	739.2	0	739.2
Subtotal—Regional Taxes	1,622.8	1,401.9	3,024.7
New York State Contributions			
State Operating Assistance	790.3	146.3	936.6
MMTOA**	2,459.2	1,185.9	3,645.1
Gross Petroleum Business Tax	1,225.1	216.2	1,441.3
Subtotal—State Revenues Contributions	4,474.6	1,548.3	6,022.9
TOTAL REVENUES	17,911.6	7,732.5	25,643.9
Operating Expenses			
Operating Expenses	18,549.0	9,040.7	27,589.7
Debt Service for Capital Expenditures	2,679.9	1,454.5	4,134.4
TOTAL EXPENSES	21,228.9	10,495.2	31,724.1
Operating Deficit			
Deficit after Subsidies	(3,317.3)	(2,762.7)	(6,080.2)
Cash Adjustment	366.6	1,185.1	1,551.7
Opening Cash Balance	43.4	48.8	92.2
CAPITAL AND OPERATING GAP	\$(2,907.5)	\$(1,528.8)	\$(4,436.3)
Funding the Gap			
Expense Reductions Not Impacting Service			911.5
Reduction in Debt Service as a Result of Debt Restructuring			1,162.8
New Governmental Assistance/Other Resources			2,362.0
Total Gap Closing Measures			\$4,436.3
2000-2004 Capital and Operating Plan Gap			\$0
Notes:			
* Totals may not add due to rounding.			
** MMTOA is the Metropolitan Transportation Operating Assistance Program created by Section 88-a of the New York State Finance Law. The dedicated regional taxes used to fund this program include sales tax revenues, a long-lines tax, a business tax surcharge and a tax on gross oil company receipts.			

Table 22-7

**Capital Cost Estimates: Preferred Alternative Option 1
and Option 2**

Component	Option 1 Cost (in millions)	Option 2 Cost (in millions)
Construction, Engineering, and Management	\$3,521.4	\$3,295.9
Right-of-way	400.0	264.0
Rolling Stock	790.5	790.4
Total ESA Capital Costs	\$4,711.9	\$4,350.3
Notes: The above table reflects the costs of the Preferred Alternative. Other improvements that benefit operations for LIRR or other transit operators and also benefit East Side Access could also be built while the Preferred Alternative is under construction. Funding for those items, which include extensions of MTA NYCT tunnel structures and yards on Long Island for nighttime storage of LIRR trains, would be funded by the agencies that most directly benefit from the improvements and not as part of the total ESA capital costs. Costs are escalated to midpoint of construction.		

- Maintenance of additional rolling stock and additional personnel costs for train crews and equipment moves; passenger services and ticketing; and
- Additional energy consumption, including the cost of traction power and hotel power.

PLANNED SCOPE OF WORK FOR EAST SIDE ACCESS: 2000-2004 PLAN PERIOD

The \$1.5 billion available for East Side Access in the 2000-2004 Capital Program will be sufficient to complete final design for the project and to initiate significant construction and tunneling activities as detailed in Chapter 2, "Project Alternatives," and Chapter 17, "Construction and Construction Impacts."

APPROVED FUNDING FOR EAST SIDE ACCESS

To date, the MTA Board of Directors has approved \$7 million in the 1992-1996 Capital Program, \$192 million in the 1995-1999 Capital Program, and an additional \$1.5 billion for the Preferred Alternative of East Side Access in the 2000-2004 Capital Program. Thus, 39 percent of the costs associated with the Preferred Alternative would be fully funded, assuming a 50 percent federal participation.

ANTICIPATED FEDERAL SHARE FOR EAST SIDE ACCESS

The financial plan for the Preferred Alternative assumes that 50 percent of the capital costs—approximately \$2.2 billion—would be funded from non-Section 5309 New Starts funds. This high level of local overmatch to federal funds reflects the region's commitment to implementing new LIRR service to the east side of Manhattan. Through September 1999, MTA had committed \$138.5 million for the Preferred Alternative of the East Side Access Project. Of this amount, \$94.7 million, or 68 percent, has been from local fund sources. The 2000-2004 Capital Program allocates \$1.5 billion for East Side Access and assumes that federal participation would total 50 percent *over the life of the project*.

While MTA's financial analysis assumes that FTA would provide 50 percent of the total cost of the Preferred Alternative, the actual share would in fact be much less when one considers the value of real estate assets that are currently owned by MTA and would be used by the project. The yards to be built to support the Preferred Alternative would be built on property currently owned by MTA at Yard A in Sunnyside, Queens; as well as yards in Highbridge, Bronx; Blissville, Queens; and Fresh Pond, Queens. In addition, the right-of-way for the tunnel alignment itself, from Queens to 63rd Street and Second Avenue, except for a short segment in Sunnyside Yard that is owned by Amtrak, is also owned by MTA. The Preferred Alternative would also use more than 300,000 square feet of space within Grand Central Terminal, one of the premier landmark buildings in the world. The market value of this premier landmark space in one of the most valuable areas of the world is conservatively estimated at \$460 million for the terminal and \$1.2 billion for the trainshed.

Traditional New Starts projects in other areas typically include property acquisitions for yards, right-of-way, and station facilities as eligible project costs. The project costs for East Side Access do not include the value of real estate currently owned by MTA. MTA's share of eligible project costs would therefore be considerably higher than 50 percent, since the value of the assets described above would not be included in determining federal participation for the Preferred Alternative.

FUNDING REVENUE SHORTFALLS

The \$1.5 billion allocated for the Preferred Alternative would be derived from the pool of resources available to MTA that have been described above. The availability of a variety of fund sources—many from dedicated taxes—that help finance MTA 2000-2004 Capital and Operating Plan minimizes the likelihood that a resource shortfall will be experienced. In addition, the Preferred Alternative's funding must be considered within the context of the \$31.724 billion in operating funds and \$18.062 billion in capital funds that would be committed between 2000 and 2004. As Table 22-8 illustrates, the \$750 million in local funds allocated to the Preferred Alternative in the 2000-2004 Plan represents just 1.5 percent of the \$49.786 billion in capital and operating funds that would be committed by MTA over the next 5 years.

Table 22-8

**MTA 2000-2004 Capital and Operating Plan—
Planned Commitments* (Dollars in Millions)**

2000-2004 Operating Plan	\$31,724
2000-2004 Capital Program	18,062
Total Planned MTA Commitments	\$49,786
Planned East Side Access Commitments	\$1,500
East Side Access: \$1.5 billion as a percentage of planned MTA 2000-2004 commitments	3.01%
MTA's 50 percent share of East Side Access costs—\$750 million—as a percentage of planned MTA 2000-2004 commitments	1.50%
Note: * Includes MTA Bridges and Tunnels.	

STABILITY AND RELIABILITY OF THE 2000-2004 PLAN

The stability of the funds available to MTA is highlighted in Table 22-9, which summarizes the distribution of state funds to MTA since 1983. The significance of this summary is that the large number of dedicated taxes available to fund MTA's programs and services has funded capital and operating plans during periods of economic growth and economic downturns. It is this stability that has been the hallmark of MTA Capital and Operating Plans since 1982. This stability is also reflected in MTA's investment grade bond rating from the following institutions:

S&P	BBB+
Moody's	Baa1
Fitch	A-

Table 22-9
State Public Transportation Funds for MTA
Appropriated by New York State

Year*	State General Fund Section 18-b	Mass Transportation Operating Assistance Fund (MMTOA)	Dedicated Mass Transportation Trust Fund (SDF)	Total State Funds
1983-1984	\$145,580,000	\$394,420,000		\$540,000,000
1984-1985	115,720,000	503,865,000		619,585,000
1985-1986	115,720,000	600,752,000		716,472,000
1986-1987	115,720,000	572,132,000		687,852,000
1987-1988	212,924,800	586,478,000		799,402,800
1988-1989	212,924,800	648,493,000		861,417,800
1989-1990	212,924,800	658,024,000		870,948,800
1990-1991	210,796,000	629,088,000		839,884,000
1991-1992	187,924,000	647,500,000		835,424,000
1992-1993	199,735,000	699,647,000		899,382,000
1993-1994	187,924,000	717,644,000	129,300,000	1,034,868,000
1994-1995	187,924,000	747,818,000	220,410,000	1,156,152,000
1995-1996	59,924,000	801,400,000	228,800,000	1,090,124,000
1996-1997	91,353,000	797,028,000	241,000,000	1,129,371,000
1997-1998	77,793,000	875,505,000	252,243,000	1,205,541,000
1998-1999	77,793,000	1,003,729,000	256,700,000	1,338,222,000
Totals	\$2,412,680,400	\$10,883,513,000	\$1,328,453,000	\$14,624,646,400
Note: * New York State Fiscal Year (April to March).				

E. TWENTY-YEAR FINANCIAL PLAN AND CASH FLOW: 1999-2020

To demonstrate MTA's ability to finance the Preferred Alternative and other MTA network expansion initiatives, annual capital commitments and expenditures for the Preferred Alternative have been evaluated along with the annual capital and operating needs of NYCT, LIRR, and MNR. As the funding entity for regional transportation, MTA and its state and local funding partners are committed to continuing investment in the maintenance and normal replacement of existing transit assets while simultaneously expanding the network to meet ridership demand

and regional transportation goals. These capital and operating needs have been projected out over the 2000-2019 period of the cash flow. The cash flow for the Preferred Alternative is identified separately.

FINANCIAL PLAN ASSUMPTIONS AND METHODOLOGY

The objective of this analysis is to project annual capital and operating expenses from 1999 to 2020. The financial plan reflects the costs and revenues necessary to operate and maintain the baseline MTA transit network in a state of good repair, provide for the normal replacement of capital assets, fund the construction and operation of the Preferred Alternative, and provide a financial envelope for future MTA network expansion initiatives. The assumptions regarding the network expansion financial envelope are explained in more detail in the “Uses of Funds” section below.

The financial plan includes the current and projected costs and revenues for NYCT, LIRR, MNR, and MTA Headquarters. Based on MTA consolidated financial reporting practice, the financial plan contains operating costs and operating revenues for NYCT, which includes the subway and bus network, and for MTA Commuter Railroads, which include LIRR, MNR, and MTA Headquarters. Similarly, capital infrastructure and rolling stock investments not associated with the Preferred Alternative are presented for NYCT and MTA Commuter Railroads. Unless otherwise noted, average revenues and expense growth rates are adjusted for inflation using the WEFA, Inc. forecasts of the New York Region CPI-U.

The financial plan does not include the operating costs and revenues associated with the Staten Island Railway and MTA Bridges and Tunnels. Based on standard MTA consolidated financial reporting practice, the operating costs, operating revenues, and subsidy needs for Staten Island Railway are netted out of the financial plan. MTA Bridges and Tunnels is self-funded from toll revenues. As a result, the financial plan reflects the transfer of surplus toll revenues to MTA’s transit network after Bridges and Tunnels operating and maintenance, capital, and debt service expenses have been deducted.

SOURCES OF FUNDS ASSUMPTIONS

The following sections describe the assumptions of the financial plan regarding the sources of operating and capital funds as well as how those funds would be used.

Operating Funds

Fare Revenues. Revenue assumptions for the 2000-2004 time period for NYCT and MTA Commuter Railroads are based on MTA’s 2000-2004 financial plan projections. Beginning in 2005, fare revenues are based on the ridership forecasts and fare assumptions prepared for this document. Specifically, projected fare revenues reflect the combined impact of ridership growth and annual inflationary fare adjustments. It is assumed that between 2005 and 2011, ridership will grow based on the No Action forecasts. Based on the most recent project construction schedule, it is estimated that the Preferred Alternative will be completed in 2011. As a result, the ridership and fare revenue impacts associated with the Preferred Alternative are reflected in the 2012 to 2020 forecasts.

As described throughout the EIS, East Side Access would allow many LIRR commuters bound for Manhattan’s East Side to avoid using NYCT subways to complete their journeys to work. As is shown in the ridership forecasting appendix (see Appendix C), with East

Side Access in place, a decrease in weekday subway ridership of 12,247 riders would occur in 2010 and 12,955 riders in 2020 compared to the No Action. Systemwide, these passengers who no longer use the subway would translate into a loss of subway system revenue of \$70,500 daily (in 2000 dollars) in comparison with the No Action condition, or approximately \$15.1 million annually. (It should be noted that in comparison to existing conditions, however, there would be virtually no revenue lost, since it is assumed that growth between now and 2020, No Action, will generate 12,000 new riders.) This shift in ridership relative to the No Action condition is accounted for in MTA's financial projections.

Other Operating Revenues. These revenues include rents, concessions, and other operating revenues that NYCT and the MTA Commuter Railroads internally generate. These revenue sources range from leases at Grand Central Terminal to food and beverage sales at station platforms. Revenue projections for the 2000-2004 time period reflect MTA's estimate defined in the 2000-2004 financial plan. For the remainder of the financial plan period, other Commuter Railroad operating revenues are projected to grow by 2.88 percent annually, while other NYCT operating revenues are estimated to grow 1.10 percent annually. These assumptions are based on the average annual growth rate for these revenue sources between 1983 and MTA's estimate for 2004.

MTA Dedicated Revenues. Two sources of MTA dedicated revenues—baseline and supplemental—are projected as follows:

- **Baseline Revenues** include Bridges and Tunnels toll surplus, MMTOA allocations, and receipts from the Mortgage Recording Tax, Urban Tax, and Petroleum Business Tax. The 2000-2004 projections are based on MTA's financial plan. Between 2005 and 2020, these revenues grow at an annual rate of 3.56 percent. This is based on the 1983 actual and MTA 2004 forecast average annual rate of 4.03 percent for these revenues, adjusted to reflect the slower rate of baseline inflation projected for the New York region during this period. Between 1983 and 2004, baseline inflation's average annual rate is estimated to be 3.51 percent. Based on WEFA inflation forecasts for the New York region extended to 2020, it is assumed baseline inflation would be 3.15 percent.
- **Supplemental Revenues** will help close a projected \$4.4 billion funding gap over the 2000-2004 capital program period. These include a combination of non-service-related expense reductions, financing initiatives, and new governmental assistance. The timing and exact nature of these strategies will be more fully defined subsequent to discussions between MTA and its funding partners, and the approval of the capital program by the Capital Program Review Board. For the purposes of this financial analysis, it is assumed that a new stream of supplemental dedicated revenues would be available in addition to MTA's other revenue sources to meet the operating needs of NYCT and MTA Commuter Railroads.
- **State Operating Assistance** includes New York State Section 18-B operating grants to fund a portion of NYCT and MTA Commuter Railroad needs and Connecticut Department of Transportation grants for MNR's New Haven Line. New York State law requires a 100 percent local match of state Section 18-b appropriations. Therefore, the State Fiscal Year 1998-1999 Section 18-b appropriation of \$187.924 million yields \$375.848 million, including the regional local match from the City of New York and the counties in the MTA region. The 2000-2004 projections for these sources are based on MTA's financial plan.

Between 2005 and 2020, these sources are projected to grow by 1.60 percent annually. This reflects the average annual rate between 1983 and MTA's estimate for 2004.

Local Operating Assistance. This refers to funding provided by New York City and the suburban counties within MTA's service area, as well as station maintenance contributions from local jurisdictions. The 2000-2004 forecasts are based on the financial plan, while the out-year projections assume an average annual growth rate of 2.34 percent. The out-year growth rate reflects average annual growth projected between 1985 and MTA's estimate for 2004.

Operating Cash Adjustments. This includes cost reimbursements and depreciation. The 2000-2004 projections are based on the financial plan, while the out-year projections assume these adjustments would grow at the same rate as operating costs.

Interest Income. This includes interest earned on cash balances and on debt service reserve funds. Annual interest earnings rates are based on WEFA forecasts for 1-year treasury bonds.

Capital Program Funds

Capital Grant Funding Sources. The financial plan assumes that capital grant funding would be provided by the following sources:

- **FTA Section 5307 Formula, Section 5309 Fixed Guideway, Section 5309 New Starts for Network Expansion Projects Other than East Side Access, and Other Federal Sources.** Based on MTA's 2000-2004 financial plan, the analysis assumes that FTA formula and discretionary grants would fund 30.28 percent of the capital expenditures for all projects other than the Preferred Alternative. Between 2005 and 2020, FTA funding sources would cover 30.1 percent of state of good repair and normal replacement capital needs. This percentage is based on the historical share of federal funding, excluding New Start funds, since 1982. In addition, the financial plan assumes that FTA New Starts grants would fund 50 percent of the network expansion projects other than the Preferred Alternative.
- **Section 5309 New Starts Funds for the Preferred Alternative.** FTA New Starts grants would fund 50 percent of the Preferred Alternative's project costs. MTA resources would fund the other 50 percent of the project's capital needs. For the purposes of this analysis, the annual amount of grant funding projected in the financial plan assumes that FTA New Starts funds would cover 50 percent of the expenditure needs of the project on a cash basis. Due to the magnitude of the project's resource needs, the required amount of federal resources during the peak of construction will likely exceed the annual allocation of funds that MTA would ultimately negotiate as part of a Full Funding Grant Agreement (FFGA) with FTA. For example, the project requires annual grant funding in excess of \$200-\$300 million over several years of the construction schedule. To close the gap between the flow of FTA funds negotiated as part of the FFGA and the project's resource needs, MTA would likely utilize short-term financing, such as grant anticipation notes. As part of the FFGA negotiation process, MTA and FTA will mutually define the annual flow of federal funds based on the construction needs of the project and the federal resources available to fund the project. It is also proposed that MTA and FTA mutually identify: (1) the need for short-term financing that would be used to close any potential gaps between resource needs and availability; and (2) the amount of FTA funding in addition to the federal share of the project's construction costs that would be required to pay for short-term financing/interest costs.

City of New York. It is assumed that City of New York capital program contributions would equal \$106 million each year from 1999 through 2020. This is consistent with the city's base level of contributions to MTA's Capital Program.

MTA Carryover, Investment Income, One-Time Sources, and Other Revenues. This includes other revenue sources identified in the 2000-2004 capital program. It is assumed this source would fund 3.74 percent of non-East Side Access capital needs throughout the financial analysis period.

Bond Proceeds. Bonds are issued on an annual basis to close the gap between available revenues and capital needs. Debt is sized based on the portion of annual capital expenditures not funded by FTA grants, City of New York contributions, and other MTA capital revenue sources. For the purposes of the financial analysis, it is assumed that debt would be structured as 30-year revenue bonds, which would be secured by the combination of MTA's fare and other operating revenues, dedicated revenues (both baseline and supplemental), state operating assistance, and local operating assistance. This debt structure generally mirrors the practice that MTA has historically followed to debt finance its capital program. Interest rates between 5.8 and 6.1 percent were assumed in the analysis. These rates are based on WEFA forecasts for the Muni Bond Buyer Index (which assumes 20-year bonds), adjusted upward by 80 basis points to factor in 30-year bonds and a more conservative interest rate assumption.

USES OF FUNDS ASSUMPTIONS

Operating Costs

The 2000-2004 estimates reflect the assumptions contained in MTA's financial plan. NYCT operating costs beyond 2004 are assumed to grow at 2.79 percent annually. This is based on the average annual growth rate between 1983 and MTA's estimate for 2004.

Commuter Railroad operating costs also reflect the assumptions contained in MTA's financial plan. Beginning in 2005, Commuter Railroad operating costs grow at inflation. The historical growth rate was not used to project Commuter Railroad operating costs into the future because it would be at a rate higher than baseline inflation. Given MTA's focus on containing costs and delivering service improvements within constrained budgets, a higher than inflation operating cost growth assumption was assumed not to be reasonable.

Operating costs of the Preferred Alternative are separated out for the purposes of this analysis. Based on the 2011 forecasted construction completion date, it is assumed that revenue service would begin in 2012. Once service is initiated, East Side Access-related operating costs would grow relative to overall Commuter Railroad costs.

Capital Costs

These reflect projected annual expenditures required to design and construct the Preferred Alternative. The construction cash flow is based on the start and end dates reflected in the Integrated Project Schedule for the major scope of work. The cost estimate is applied against standard expenditure curves using Primavera Project Planner software. Cash flow estimates for engineering and management are distributed based on the current staffing level projections developed in the work plans.

Although the cash flow projects costs from 1999 to 2011, it should be noted that costs have been incurred since 1998. During the financial plan period, the Preferred Alternative capital costs are

expected to equal \$4.3 billion. The annual costs portrayed in the financial plan do not match the costs presented for corresponding years in the 2000-2004 Capital Program. This is because the capital program estimates are based on the year in which costs will need to be committed, while the financial plan shows when costs would be incurred on an expenditure basis. As a result, there is a lag between commitments and expenditures.

MTA Capital Program

In addition to East Side Access, the financial plan projects annual expenditures for NYCT and MTA Commuter Railroad infrastructure, rolling stock, and bus fleet needs. These costs are for projects that will allow MTA to bring assets to a state of good repair and maintain them on a normal replacement cycle. In addition, it would also allow MTA to invest in network expansion initiatives in addition to the Preferred Alternative of East Side Access.

Similar to the East Side Access, infrastructure and vehicle costs portrayed in the financial plan do not match the annual costs shown in MTA's capital program. Again, this is because the financial plan shows project costs on an expenditure basis, while the capital program shows costs on a commitment basis. Annual infrastructure and vehicle expenditures were estimated based on the following:

- **Infrastructure.** The financial analysis projects cash expenditures for NYCT and MTA Commuter Railroad capital investments. For the 2000 and 2004 time period, projections are based on the average annual rate of expenditure experienced during the 1995-1999 capital program. This average expenditure rate was increased to account for inflation and for the higher level of commitments planned in the 2000-2004 program compared with the 1995-1999 program. In real terms, the scope of the 2000-2004 Capital Program, excluding East Side Access, is approximately 8 percent greater than the 1995-1999 Capital Program. This greater level of commitment reflects MTA's strategy of initiating other network expansion projects in addition to East Side Access. Therefore, annual infrastructure expenditures were increased in real terms by 8 percent between 2000 and 2004.

To provide a financial envelope for future system expansion initiatives beyond the 2004 time period, infrastructure expenditures were gradually increased by an additional 8 percent in real terms between 2005 and 2009. This additional increase in the expenditure rate would allow MTA to progress another network expansion project, or multiple projects, that would be in the same total magnitude cost as East Side Access. It should be noted that the operating impacts of other network expansion projects are not reflected in the financial plan.

- **Rolling Stock and Buses.** The analysis assumes that rolling stock investments would be made at the beginning of a 5-year capital program and therefore would spend out by the end of that 5-year program. Expenditures for 2000-2004 are based on the capital program, while 2005-2020 expenditures are based on MTA's fleet replacement strategies.

DEBT SERVICE

Annual debt service is forecasted for existing debt issues based on MTA's 1999 Combined Continuing Disclosure Filing and new debt service to repay bonds that would be issued over the financial analysis period.

RESULTS OF THE FINANCIAL ANALYSIS

Table 22-11 at the end of this chapter shows the results of the 1999-2020 financial analysis. Overall, the projected sources of fare and other operating revenues; dedicated revenues; and federal, state, and local grants and assistance would be sufficient to meet MTA's projected capital and operating needs. Over the financial plan period, total sources of funds, including the availability of a 1999 fund balance, equal \$286 billion, while total uses equal \$286 billion. Total debt issued during this period equals \$53.5 billion.

Although MTA's debt service coverage ratio (defined as the total of fare and other operating revenues, dedicated MTA's revenues, and state and local assistance divided by debt service) declines, it remains above 3.0 and stabilizes during the last 7 years of the plan. As a result of ridership growth and annual fare adjustments, MTA's operating ratio (defined as fare and other operating revenues divided by operating costs) remains stable within the 55 to 57 percent range between 2010 and 2020. The operating ratio, when debt service is included, declines during the financial plan period, but stabilizes at 39 to 40 percent between 2009 and 2020.

STABILITY AND RELIABILITY OF CAPITAL FINANCING PLAN

The financial analysis described herein has defined a set of strategies based on MTA's successful approach to financing its capital and operating needs over a nearly 20-year period. MTA's reliance on its own funding resources has resulted in a stable financial program that is reflected in its investment grade rating by financial institutions. MTA's capital program is far less reliant on federal funds than the national average.

STABILITY AND RELIABILITY OF OPERATING FINANCING PLAN

As previously demonstrated, MTA's operating revenue stream has a long history of stability. The following reiterates a few key points about the operating plan:

- The largest revenue source is the one MTA has the most control over—fares. The 1999 projected Farebox Recovery Ratio is 60 percent before debt service and 50.4 percent, including debt and Staten Island Railroad.*
- MMTOA Funds, which are funded from a variety of dedicated taxes, have provided a consistent tax base since 1980. These include Petroleum Business Tax, Sales Tax, Long Lines Tax, and Temporary Business Tax surcharge (levied in 1982; expires every 2 years and has been consistently renewed).
- Urban Tax provided by New York City.
- Station Maintenance, Operations, and Use Assessments on New York City and Suburban Counties have provided a consistent revenue stream.
- Direct Grants provided by New York State and matched by the City of New York and the suburban counties.
- Interagency Subsidies from MTA Bridges & Tunnels. By New York State law, annual net operating surpluses are transferred to MTA and MTA NYCT.

* This represents one of the highest fare recovery ratios in the country. The debt service ratios contained in the Sources and Uses of Funds in Table 22-11 reflect year-end projections.

ABILITY TO RESPOND TO REVENUE SHORTFALLS

The flexibility of MTA's financial plan provides MTA with the ability to respond to revenue shortfalls. MTA's ability to respond to shortfalls is enhanced by the following:

- A variety of operating revenues, which allows us to respond to shortfalls in any one source.
- An ability to implement \$3 billion in expense reductions with no impact on service.
- The pooling of non-dedicated capital funds, which enhances MTA's investment strategy.
- A 20-year record of success in financing and implementing capital programs.
- A mass transit dependent New York region, leading to low elasticity of demand with respect to fares.
- The largest revenue stream coming from fare box revenues. Since September 1975, the basic fare charged for use of the transit system has been raised seven times. The last transit fare increase from \$1.25 to \$1.50 was in November 1995. After adjusting for inflation, the current base fare is the same as the fare charged in 1975. Since 1982, fares have been raised four times on the commuter lines, most recently on November 12, 1995. After adjusting for inflation, current fares are lower than they were in 1982. Ridership has increased with the advent of MetroCard and fare discounts. MTA has never defaulted on bonds; bonds are insured and usually carry a two times debt service coverage ratio.

The financial analysis demonstrates MTA's ability to fund the construction of the Preferred Alternative of East Side Access and integrate the service within the operation and maintenance of MTA's vast transportation network. The projected fare recovery ratios, already among the highest in the country, increases to 57 percent by 2020. In addition, the debt service coverage ratio remains above 3.0. Both these factors, along with a strong history of self-reliance, point to a strong and reliable financial plan.

F. PROPOSED LIRR LONG-TERM INVESTMENT STRATEGIES: 1999-2020

The LIRR has developed long-term investment strategies to meet the projected customer demand and the changing face of the transportation network. As commuter markets continue to expand toward the east and as the reverse commuter market is expected to grow, strategies for the next 20 years strive to increase capacity in both infrastructure and rolling stock while simultaneously maintaining existing infrastructure investments. The LIRR's \$7.5 billion long-term investment program, summarized in Table 22-10, focuses on maintaining the existing infrastructure in a state of good repair, expanding service to meet regional transportation needs, introducing new technologies to optimize operations and safety, and make investments to support other regional system expansions. The principal strategies and system improvement projects (excluding the East Side Access Project) that make up the coordinated program include the following:

- **Rolling Stock:** The LIRR will replace the entire M1 electric fleet with new M7 vehicles, overhaul the M3 electric fleet to extend its useful life, and expand the M7 fleet to meet projected ridership demand.

Table 22-10
Long Island Rail Road
Summary of Capital Needs
2000-2019

Category	Cost in Millions (1999 dollars)
Rolling Stock	\$2,339
Station	855
Track	1,688
Line Structures	314
Communications and Signals	1,142
Shops and Yards	705
Power	423
Miscellaneous	41
Total	7,505
Note: Capital Needs do not include East Side Access Project.	

- **Stations:** The long -term objective is to improve the appearance and utility of the stations, expand parking and construct intermodal station facilities, thereby increasing customer satisfaction and the LIRR's ability to meet customer demand.
- **Track Program:** The LIRR will continue the cyclical replacement of track infrastructure. Concrete ties will be installed in selected areas to maximize service life and minimize track outages that impact on customers. Significant system improvements are also proposed, including construction of a third track on the Main Line between Queens and Divide interlockings and a second track from Farmingdale to Ronkonkoma, that will increase train capacity.
- **Line Structures:** The LIRR will bring bridges and viaducts to a state-of good repair and continue rehabilitation of the East River Tunnels to Penn Station.
- **Communications and Signals:** The infrastructure will be upgraded to increase operational capacity and continue the safe operations of trains. Fiber optics will be installed to reduce leased line services, increase reliability and improve communications with customers. New technologies including Communications Based Train Control will be installed and cab signaling replaced.
- **Shops and Yards:** In anticipation of the growth in the rolling stock fleet the LIRR is finalizing a long-term operating and maintenance strategy to identify the optimal mix of existing yard upgrades, expansions and new yards to support service requirements. The strategy will include improving train storage capacity for electric fleet on east end of Long Island, train wash facilities, and employee facilities.

- **Power Program:** In addition to ongoing component replacement eight substations are scheduled for reconstruction and 12 will undergo complete equipment replacement. Plans also include the electrification of the Central Branch portion of the Main Line.
- **Miscellaneous:** Included are investments to maintain Penn Station and construction equipment in a state-of-good repair. ❖

Table 22-11
Metropolitan Transportation Authority
Sources and Uses of Funds Analysis
1999-2020
(Millions of Year-of-Expenditure Dollars)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
SOURCES OF CASH																							
Fares and Other Operating Revenues																							
New York City Transit Fare Revenues	\$1,966.4	\$1,986.3	\$1,994.0	\$2,009.0	\$2,030.0	\$2,050.9	\$2,128.8	\$2,210.6	\$2,296.1	\$2,385.6	\$2,479.1	\$2,574.9	\$2,667.2	\$2,740.3	\$2,838.5	\$2,940.3	\$3,045.7	\$3,154.9	\$3,268.1	\$3,385.2	\$3,506.6	\$3,632.4	\$57,291.0
New York City Transit Oth Op. Revenues	\$186.7	\$183.1	\$177.1	\$183.7	\$190.0	\$195.8	\$197.9	\$200.1	\$202.3	\$204.6	\$206.8	\$209.1	\$211.4	\$213.7	\$216.1	\$218.4	\$220.8	\$223.3	\$225.7	\$228.2	\$230.7	\$233.2	\$4,558.7
MTA Commuter Railroad Fare Revenues	\$656.4	\$675.3	\$687.5	\$697.9	\$708.2	\$719.3	\$751.1	\$784.7	\$820.0	\$857.1	\$896.1	\$936.4	\$971.9	\$1,058.0	\$1,098.3	\$1,140.1	\$1,183.5	\$1,228.6	\$1,275.4	\$1,323.9	\$1,374.4	\$1,426.7	\$21,270.6
MTA Commuter Railroad Oth. Op. Revenues	\$54.5	\$74.4	\$76.8	\$78.3	\$79.8	\$81.7	\$84.1	\$86.5	\$89.0	\$91.5	\$94.2	\$96.9	\$99.7	\$102.5	\$105.5	\$108.5	\$111.7	\$114.9	\$118.2	\$121.6	\$125.1	\$128.7	\$2,123.8
MTA Dedicated Revenues																							
Baseline Dedicated Revenues	\$1,578.0	\$1,574.7	\$1,587.1	\$1,622.7	\$1,643.4	\$1,660.9	\$1,720.0	\$1,781.2	\$1,844.6	\$1,910.3	\$1,978.3	\$2,048.7	\$2,121.7	\$2,197.2	\$2,275.4	\$2,356.4	\$2,440.3	\$2,527.2	\$2,617.2	\$2,710.3	\$2,806.8	\$2,906.8	\$45,909.4
First Supplemental Dedicated Revenues	\$0.0	\$477.7	\$732.3	\$949.7	\$1,145.3	\$1,368.2	\$1,513.4	\$1,617.3	\$1,734.4	\$1,871.7	\$2,061.8	\$2,262.1	\$2,396.0	\$2,666.4	\$2,819.6	\$3,013.6	\$3,201.6	\$3,292.7	\$3,295.2	\$3,308.6	\$3,425.4	\$3,519.8	\$46,672.8
State Operating Assistance	\$217.0	\$220.5	\$221.3	\$222.1	\$222.9	\$223.7	\$227.3	\$230.9	\$234.6	\$238.3	\$242.2	\$246.0	\$250.0	\$254.0	\$258.0	\$262.2	\$266.4	\$270.6	\$275.0	\$279.4	\$283.8	\$288.4	\$5,434.4
Local Operating Assistance	\$301.8	\$305.6	\$309.3	\$313.2	\$317.2	\$321.3	\$328.8	\$336.5	\$344.4	\$352.4	\$360.7	\$369.1	\$377.8	\$386.6	\$395.7	\$404.9	\$414.4	\$424.1	\$434.0	\$444.2	\$454.6	\$465.2	\$8,161.8
Operating Cash Adjustments																							
New York City Transit	\$171.9	\$81.3	\$61.8	\$37.7	\$61.1	\$124.6	\$128.1	\$131.6	\$135.3	\$139.1	\$142.9	\$146.9	\$151.0	\$155.3	\$159.6	\$164.0	\$168.6	\$173.3	\$178.2	\$183.1	\$188.2	\$193.5	\$3,077.1
MTA Commuter Railroad	\$231.7	\$196.3	\$242.2	\$247.4	\$244.3	\$255.0	\$263.0	\$271.4	\$280.1	\$288.9	\$298.0	\$307.4	\$317.1	\$327.0	\$337.3	\$348.0	\$358.9	\$370.2	\$381.9	\$393.9	\$406.3	\$419.1	\$6,785.3
Capital Grant Funding Sources																							
Federal (5307/5309 Formula/Non-ESA New Starts/Flex.)	\$627.0	\$565.5	\$626.2	\$726.2	\$915.8	\$946.7	\$766.5	\$834.9	\$950.6	\$1,276.5	\$1,385.2	\$970.3	\$1,059.2	\$1,201.8	\$1,447.2	\$1,437.8	\$971.0	\$1,010.6	\$1,063.4	\$1,173.9	\$1,219.6	\$1,260.9	\$22,436.7
Sec 5309 New Starts for East Side Access	\$23.8	\$2.0	\$91.0	\$121.0	\$160.1	\$180.4	\$196.5	\$220.5	\$239.3	\$290.9	\$303.4	\$216.9	\$124.1	\$3.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,173.6
City of New York	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$106.0	\$2,332.0
MTA Program Carryover, B&T Inv. Income, Oth.	\$77.4	\$69.8	\$77.3	\$89.6	\$113.0	\$116.8	\$90.9	\$98.5	\$111.9	\$151.3	\$163.7	\$112.0	\$122.8	\$140.2	\$170.3	\$168.9	\$110.6	\$115.3	\$121.5	\$134.9	\$140.2	\$145.0	\$5,641.8
From Interest Income	\$16.9	\$5.6	\$11.1	\$17.1	\$24.4	\$33.7	\$43.4	\$49.8	\$56.9	\$63.4	\$73.6	\$84.1	\$90.2	\$98.3	\$107.2	\$118.1	\$129.0	\$135.8	\$142.9	\$150.5	\$155.5	\$164.1	\$1,771.5
From Financing Program																							
Revenue Bond Proceeds	\$1,412.7	\$1,426.8	\$1,586.9	\$1,874.2	\$2,390.9	\$2,481.7	\$1,905.2	\$2,161.3	\$2,456.7	\$3,322.9	\$3,583.6	\$2,391.0	\$2,503.1	\$2,717.1	\$3,337.6	\$3,304.2	\$2,087.7	\$2,180.7	\$2,307.6	\$2,583.3	\$2,691.5	\$2,787.4	\$53,494.0
TOTAL SOURCES OF CASH	\$7,628.1	\$7,950.8	\$8,587.9	\$9,295.7	\$10,352.3	\$10,866.7	\$10,450.9	\$11,121.9	\$11,902.2	\$13,550.6	\$14,375.6	\$13,077.8	\$13,569.0	\$14,368.1	\$15,672.4	\$16,091.4	\$14,816.2	\$15,328.1	\$15,810.0	\$16,527.0	\$17,114.7	\$17,677.1	\$286,134.3
USES OF CASH																							
Operating Costs																							
New York City Transit	\$3,563.4	\$3,461.3	\$3,609.1	\$3,716.9	\$3,812.6	\$3,949.1	\$4,059.3	\$4,172.5	\$4,288.9	\$4,408.6	\$4,531.6	\$4,658.0	\$4,788.0	\$4,921.6	\$5,058.9	\$5,200.0	\$5,345.1	\$5,494.3	\$5,647.5	\$5,805.1	\$5,967.1	\$6,133.6	\$102,592.6
MTA Commuter Railroads and Headquarters	\$1,564.4	\$1,697.1	\$1,759.0	\$1,806.1	\$1,861.1	\$1,917.1	\$1,976.1	\$2,038.0	\$2,102.2	\$2,169.0	\$2,238.4	\$2,308.9	\$2,381.6	\$2,456.6	\$2,533.9	\$2,613.7	\$2,695.9	\$2,780.8	\$2,868.4	\$2,958.7	\$3,051.8	\$3,147.9	\$50,926.7
East Side Access	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$157.8	\$162.8	\$167.9	\$173.2	\$178.6	\$184.3	\$190.1	\$196.1	\$202.2	\$1,613.0
MTA Capital Program																							
New York City Transit	\$1,475.9	\$1,331.2	\$1,529.2	\$1,828.7	\$2,069.8	\$1,961.2	\$1,667.3	\$1,889.4	\$2,238.6	\$2,595.6	\$2,509.7	\$2,167.8	\$2,476.9	\$2,990.7	\$3,512.1	\$3,302.9	\$2,145.6	\$2,260.5	\$2,417.6	\$2,577.8	\$2,595.9	\$2,764.3	\$50,308.9
MTA Commuter Railroads and Headquarters	\$594.7	\$536.2	\$538.7	\$569.5	\$954.5	\$1,165.2	\$766.6	\$747.8	\$757.2	\$1,455.6	\$1,873.0	\$829.5	\$808.9	\$761.4	\$1,047.7	\$1,217.7	\$816.1	\$824.5	\$834.2	\$1,032.3	\$1,157.1	\$1,116.3	\$20,404.7
East Side Access Construction																							
Right-of-Way	\$0.0	\$0.0	\$60.0	\$60.0	\$60.0	\$67.0	\$17.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$264.0
Construction/Acquisition	\$60.9	\$81.7	\$113.6	\$168.5	\$231.2	\$253.9	\$319.2	\$452.7	\$380.6	\$480.2	\$453.7	\$232.4	\$55.8	\$8.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,292.9
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$111.6	\$112.0	\$161.8	\$207.3	\$197.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$790.4
Financing Costs																							
Debt Service on Outstanding Bonds	\$478.7	\$520.8	\$526.2	\$532.9	\$532.5	\$532.8	\$532.2	\$532.0	\$531.3	\$531.7	\$531.1	\$524.7	\$524.2	\$525.4	\$524.5	\$524.4	\$523.3	\$510.0	\$404.6	\$304.1	\$287.9	\$248.2	\$10,683.3
Debt Service on New Bonds																							
Principal	\$18.2	\$37.0	\$58.9	\$85.8	\$120.7	\$158.8	\$192.2	\$231.2	\$276.3	\$335.8	\$402.2	\$457.7	\$518.0	\$584.6	\$663.3	\$746.2	\$818.1	\$895.3	\$978.9	\$1,070.9	\$1,169.8	\$1,275.8	\$11,095.6
Interest	\$83.3	\$169.3	\$263.9	\$374.7	\$515.3	\$659.4	\$766.0	\$884.0	\$1,017.4	\$1,196.7	\$1,387.8	\$1,502.3	\$1,620.0	\$1,746.5	\$1,905.1	\$2,057.2	\$2,133.8	\$2,211.5	\$2,292.1	\$2,383.7	\$2,476.2	\$2,568.4	\$30,214.5
Debt Issuance	\$11.3	\$11.4	\$12.7	\$15.0	\$19.1	\$19.9	\$15.2	\$17.3	\$19.7	\$26.6	\$28.7	\$19.1	\$20.0	\$21.7	\$26.7	\$26.4	\$16.7	\$17.4	\$18.5	\$20.7	\$21.5	\$22.3	\$428.0
Debt Service Reserve Fund	\$101.5	\$104.8	\$116.5	\$137.6	\$175.6	\$182.2	\$139.9	\$157.0	\$178.5	\$238.8	\$257.6	\$170.0	\$178.0	\$193.2	\$237.3	\$234.9	\$148.4	\$155.1	\$164.1	\$183.7	\$191.4	\$198.2	\$3,844.2
TOTAL USES OF CASH	\$7,952.4	\$7,950.8	\$8,587.9	\$9,295.7	\$10,352.3	\$10,866.7	\$10,450.9	\$11,121.9	\$11,902.2	\$13,550.6	\$14,375.6	\$13,077.8	\$13,569.0	\$14,368.1	\$15,672.4	\$16,091.4	\$14,816.2	\$15,328.1	\$15,810.0	\$16,527.0	\$17,114.7	\$17,677.1	\$286,458.6
NET CASH FLOW																							
Beginning Cash Balance	\$324.3	\$0.0	\$0.0	\$(0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(324.3)
Additions (Deletions) to Cash	\$(324.3)	\$(0.0)	\$(0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$(0.0)	\$(0.0)	\$0.0	\$(0.0)	\$(0.0)	\$(0.0)	\$0.0	\$0.0
Ending Cash Balance	\$0.0	\$0.0	\$(0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$0.0	\$0.0	\$(0.0)	\$0.0	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)	\$(0.0)
FINANCIAL RATIOS																							
Debt Service Coverage Ratio	8.55	7.56	6.81	6.12	5.42	4.90	4.66	4.40	4.15	3.83	3.58	3.52	3.42	3.37	3.24	3.14	3.13	3.11	3.13	3.14	3.10	3.08	
Operating Ratio without Debt Service	55.9%	56.6%	54.7%	53.8%	53.0%	52.0%	52.4%	52.8%	53.3%	53.8%	54.3%	54.8%	55.1%	54.6%	54.9%	55.2%	55.5%	55.9%	56.2%	56.5%	56.8%	57.2%	
Operating Ratio With Debt Service	50.2%	49.6%	47.2%	45.6%	44.0%	42.2%	42.0%	41.8%	41.5%	40.9%	40.4%	40.4%	40.2%	39.6%	39.3%	39.0%	39.0%	39.1%	39.5%	39.8%	39.8%	39.9%	