10.0 FINANCIAL PLAN

10.1 Introduction

10.1.1 Purpose

The analyses described in the previous chapters were intended to identify critical transit needs in Miami-Dade County and were undertaken without consideration of cost. In this Financial Plan chapter, however, Miami-Dade Transit (MDT) must match its needed transit improvements with available financial resources. In the financial plan, the estimated costs of providing the agency's existing and planned new services are projected out over the ten-year horizon of the TDP, and the financial resources that will support those services are also identified and estimated. It is through the development of this financial plan that MDT has determined which service improvements can be realistically achieved and when those service improvements should be implemented.

10.1.2 Financial Challenges Facing MDT

Like many transit agencies in Florida, MDT is currently facing a very difficult environment for financial planning. The challenges include:

- Major cost increases in recent years for transit projects that were identified in previous TDP's, due to substantial increases in costs for right-of-way, labor, and construction commodities such as steel and concrete.
- A deep and sustained recession across the nation, with Florida being particularly hard-hit, and all transportation funding sources – gas taxes, property taxes, sales taxes, and more – experiencing significant declines from previously projected levels.
- The delay in the reauthorization of SAFETEA-LU, which holds the potential for substantial long-term changes in federal transportation policy and funding.

In short, the past five years have been challenging for MDT and its planned transportation investments, and the FY2010-2019 TDP Major Update will reflect these difficulties. The financial plan does include a section which presents information on potential new funding sources, and MDT hopes this can serve as the basis for future policy discussions for the County about its transportation future.

10.1.3 Methodology

In 2002, the voters of Miami-Dade County approved the *People's Transportation Plan* (PTP), a plan for transit and other transportation improvements in the County supported by a dedicated half-cent sales tax (the Charter County Transit Surtax). One requirement of the PTP was a regular accounting of the projected expenses and revenues of MDT and the uses of the PTP surtax revenues. The document that presents this accounting is known as the 'PTP Pro Forma' (or simply the Pro Forma), and it is produced regularly through the joint efforts of MDT and the County's Office of Strategic Business Management. The current Pro Forma projects MDT's expenses

and revenues for thirty years, through FY 2039. This TDP Major Update Financial Plan relies directly on the first ten years (FY 2010-2019) of Pro Forma projections.

In addition to the Pro Forma, two other sources of financial data were important in the creation of this plan. The first is the National Transit Database (NTD), the Federal Transit Administration's comprehensive database of annual operational and financial information for U.S. transit agencies. The NTD provided both the historical operating and capital funding data for MDT as well as information on funding sources for other Florida agencies and MDT's peer agencies. The second source is MDT's current O&M unit cost model. This model, which allocates operating costs for each mode by cost driver (e.g., vehicle miles, vehicle hours, peak vehicles, etc.), is used to project the cost of providing the proposed service improvements, and these unit costs are also a key component of the FDOT TDP financial model described in the final section.

10.2 Baseline Operating Expenses and Revenues

10.2.1 Operating Expenses

Current Operating Expenses

MDT is the largest transit operator in the State of Florida and the 12th largest transit provider in the United States. MDT's size is reflected in the agency's direct operating budget, which is projected at almost $460 million in FY 2010. The primary components of the direct operating expenses are shown in Table 10-1 below.

Table 10-1: MDT Projected FY2010 Direct Operating Expenses

Direct Operating Expense Category	Amount (000s)
Metrobus	$ 213,750
Metrorail	$ 57,466
Metromover	$ 9,449
STS/Paratransit	$ 47,463
Operational Support	$ 102,592
Customer Support	$ 6,290
Executive Support	$ 1,382
Engineering	$ 21,257
TOTAL	**$ 459,647**

(Source: 2009 PTP Pro Forma)

In addition to these direct expenses, MDT will support over $130 million of other operating expenses, debt service payments, and funding of reserves in FY 2010. These other expenses are detailed in Table 10-2 below.

In total, MDT will spend approximately $585 million in FY 2010 for the ongoing operation of the transit system and the support of MDT's other local and regional responsibilities. A brief explanation of each expense area is provided below.

Table 10-2: MDT Projected FY 2010 Other Operating Expenses

Other Operating Expense Category	Amount (000s)
Municipal Contribution	$ 33,940
CITT Staff	$ 2,514
SFRTA Contribution	$ 4,235
Deficit & Loan Repayment	$ 29,050
Public Works Support	$ 2,735
Debt Service	$ 41,129
Reserves	$ 17,425
TOTAL	**$ 131,028**

(Source: 2009 PTP Pro Forma)

Metrobus

The Metrobus division is the largest operating division of MDT. MDT provides bus service on 94 routes throughout Miami-Dade County with a peak vehicle requirement of 744 vehicles and over 30 million scheduled annual revenue vehicle miles. In FY 2010, the Metrobus division is projected to have 2,164 employees.

MDT is currently undertaking a major initiative to improve Metrobus service efficiency and restructure the Metrobus route system. This initiative is expected to reduce Metrobus operating costs by approximately $15 million compared to what costs would be if the current operating structure were retained. If successful, this reorganization will save the County significant funds over the life of the TDP while maintaining high-quality bus service for County residents. In addition, MDT has identified almost $20 million in savings on salary, health, and longevity payments for FY 2010. The primary components of the FY 2010 Metrobus operating costs are presented in Table 10-3 below.

Table 10-3: MDT Projected FY 2010 Metrobus Operating Expenses

Metrobus Operating Expense Category	Amount (000s)
Salaries (incl. overtime)	$ 131,281
Benefits, Fringes, and Workers' Comp	$ 53,421
Fuel	$ 33,297
Inventory	$ 15,473
Other Materials, Supplies, and Contracts	$ 14,836
Impact of Efficiency Initiative	$ (15,000)
Impact of Health/Salary/Other Changes	$ (19,559)
TOTAL	**$ 213,750**

(Source: 2009 PTP Pro Forma)

Metrorail

The heavy-rail Metrorail system provides fast and frequent service to 22 stations throughout Miami-Dade County on an elevated, electrically-powered 22.6-mile guideway. The Metrorail division is projected to have 428 employees in FY 2010 who will assist in the provision of over 6.8 million annual revenue miles.

The Metrorail system's most recently completed expansion project was the Palmetto Station, which opened on May 30, 2003. However, a major new addition to the system will come online during the span of this TDP Major Update. Construction on the Miami Intermodal Center (MIC) Station, which is adjacent to and connected to the Miami International Airport, has begun as of May 2009. New elevated guideway between the MIC and the existing Earlington Heights (EH) station are also being constructed. When completed in 2012, this new connector will provide direct rail service from downtown Miami to the airport. In addition to the capital costs of the MIC-EH connector, MDT estimates that the operational changes required to serve the MIC station will increase Metrorail operational costs approximately 10 percent (10%) over their current levels.

The primary components of the FY 2010 Metrorail operating costs are presented in Table 10-4 below.

Table 10-4: MDT Projected FY 2010 Metrorail Operating Expenses

Metrorail Operating Expense Category	Amount (000s)
Salaries (incl. overtime)	$ 29,843
Benefits, Fringes, and Workers' Comp	$ 9,210
Electrical Power	$ 8,759
Inventory	$ 7,122
Other Materials, Supplies & Contracts	$ 2,532
TOTAL	**$ 57,466**

(Source: 2009 PTP Pro Forma)

Metromover

The electrically-powered, fully-automated people-mover system connects with Metrorail at Government Center and Brickell stations and with Metrobus at many locations throughout downtown Miami. The original Metromover guideway is a 1.9-mile elevated double loop with nine (9) stations, with the more recent Brickell and Omni loops adding 2.5 miles to the system and another 12 stations. The Metromover vehicles are driverless and no fares are required to ride the system, so the Metromover division operates with relatively few employees – only 70 are required in FY 2010 to produce Metromover's 950,000 revenue vehicle miles. There are no extensions of the Metromover planned during the period of this TDP Major Update.

The primary components of the FY 2010 Metromover operating costs are presented in Table 10-5 below.

Table 10-5: MDT Projected FY 2010 Metromover Operating Expenses

Metromover Operating Expense Category	Amount (000s)
Salaries (incl. overtime)	$ 5,110
Benefits, Fringes, and Workers' Comp	$ 1,538
Electrical Power	$ 1,003
Inventory	$ 1,653
Other Materials, Supplies & Contracts	$ 146
TOTAL	**$ 9,449**

(Source: 2009 PTP Pro Forma)

STS/Paratransit

Special Transportation Service (STS) is Miami-Dade Transit's complementary paratransit service based on the Metrobus, Metrorail and Metromover services. STS meets the special transportation needs of disabled Miami-Dade County citizens and is available for anyone whom MDT certifies as eligible. Privately-contracted sedans, vans, and vans equipped with lifts provide door-to-door service for eligible customers, and service is offered with no restrictions on trip purpose. The projected FY 2010 cost for the STS service contract is $45.3 million, with an additional $2.2 million in MDT support staff costs.

Support & Engineering

The expenses described above can be attributed directly to the operation and maintenance of one of MDT's four transit modes. The expenses in this category, while critical to the day-to-day functioning of the agency, cannot be specifically allocated to one mode. These expenses are organized into four principal categories:

- *Operational Support*: There are projected to be 459 operational support employees within MDT in FY 2010. These employees oversee or provide services ranging from landscaping to human resources and IT to finance and accounting to security. Recurring items for keeping the "business" side of MDT running – such as building leases, computing equipment, insurance, data processing, and more – are also included in this category. The total expenditure on Operational Support in FY 2010 is projected at $103 million, which is detailed in Table 10-6 below.
- *Customer Service*: MDT's 39 customer service employees assist the residents and visitors of Miami-Dade County with navigating the transit system. This includes providing information on routes and services, assisting seniors with the Golden Passport program, and monitoring the quality of transit services. The FY 2010 customer service budget of $6.3 million is composed almost entirely of staff salaries and benefits.
- *Engineering*: The 150 employees of the Engineering Department are responsible for the planning, design, and delivery of capital projects for MDT. This includes the procurement of new bus and rail vehicles; major rehabilitation and

replacement projects for the existing system; and the construction of new network capacity (such as the MIC-EH connector). The FY 2010 engineering budget of $21.3 million is largely comprised of staff salaries and benefits ($18.0 million) with an additional $3.3 million in smaller expenses.

Table 10-6: MDT Projected FY 2010 Operational Support Expenses

Operational Support Expense Category	Amount (000s)
Salaries (incl. overtime)	$ 31,679
Benefits, Fringes, and Unemployment	$ 9,789
Electrical	$ 1,150
Security	$ 15,545
Janitorial	$ 4,100
Outside Contractual	$ 707
Execess Liability	$ 1,000
Property Fire CVM	$ 3,309
General Liability Payouts	$ 5,000
Elevators	$ 4,500
Landscaping	$ 1,402
Other Outside Maintenance	$ 2,716
Building Leases	$ 3,202
Copy Machine	$ 453
Data Processing	$ 1,868
Radios	$ 689
IT Funding Model	$ 1,800
Other Charges	$ 3,286
Promotional	$ 575
Other General Operating	$ 1,000
Fuel	$ 600
Computers	$ 329
PC Equipment	$ 436
Customer Service - Other Line Items	$ 7,459
TOTAL	**$ 102,592**

(Source: 2009 PTP Pro Forma)

- *Executive Support*: The executive group of MDT includes 10 employees who provide both day-to-day operational leadership as well as long-term policy and planning guidance. The projected FY 2010 cost for executive support is $1.4 million.

Other Operating Expenses

MDT's other local and regional operating expense commitments, outside of its direct operating expenses, are explained briefly below:

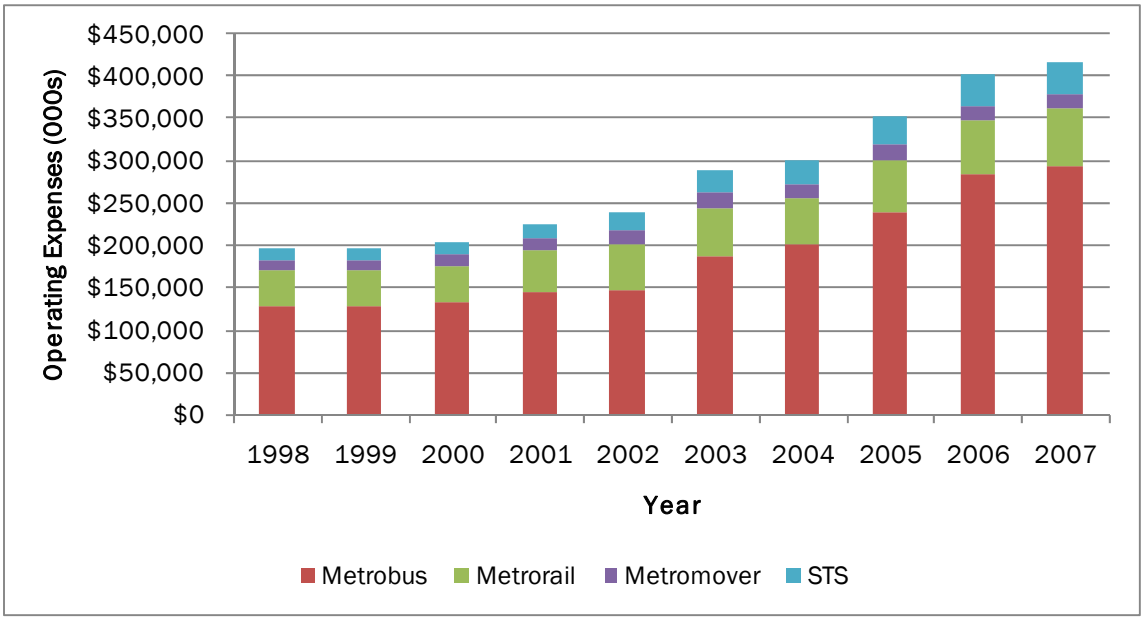
- *Municipal Contribution*: Under the terms of the PTP as approved by the County voters, 20 percent (20%) of the PTP surtax revenues must immediately be returned to the municipalities in the County for their use on local transportation projects.

- *CITT Staff*: The Citizens Independent Transportation Trust (CITT) is a citizen board with the mandate to oversee the spending of the half-cent PTP surtax. MDT contributes an annual amount to support the CITT's staff.
- *SFRTA Contribution*: Miami-Dade County's annual contribution to the South Florida Regional Transportation Authority (SFRTA), which operates the Tri-Rail commuter services in Miami-Dade, Broward, and Palm Beach Counties, flows through MDT.
- *Deficit and Loan Repayment*: In previous budget years, MDT received "loans" from the PTP and from the County General Fund to support operations, and the Pro Forma lays out the repayment schedule for those loans.
- *Debt Service and Reserves*: MDT has outstanding debt that is backed by future PTP surtax revenues, and the agency anticipates issuing more PTP-backed debt during the ten-year period of this plan. This existing and future debt service is shown on this line. In addition, MDT must annually set aside reserves in order to assure coverage of its debt service responsibilities.

Historical Growth in Operating Expenses

MDT's historic growth in operating expenses for its four primary transit modes is shown in Figure 10-1 below.

Figure 10-1: Growth in MDT Modal Operating Expenses, 1998-2007



(Source: National Transit Database)

The modal operating cost data here are taken from the NTD and have "general and administrative" costs removed, so as to focus directly on the cost of operating and maintaining the transit services. A few insights are immediately clear from the historic data. MDT was able to keep its operating expenses relatively flat during the late 1990s, which was a period of both restrained inflation as well as limited system

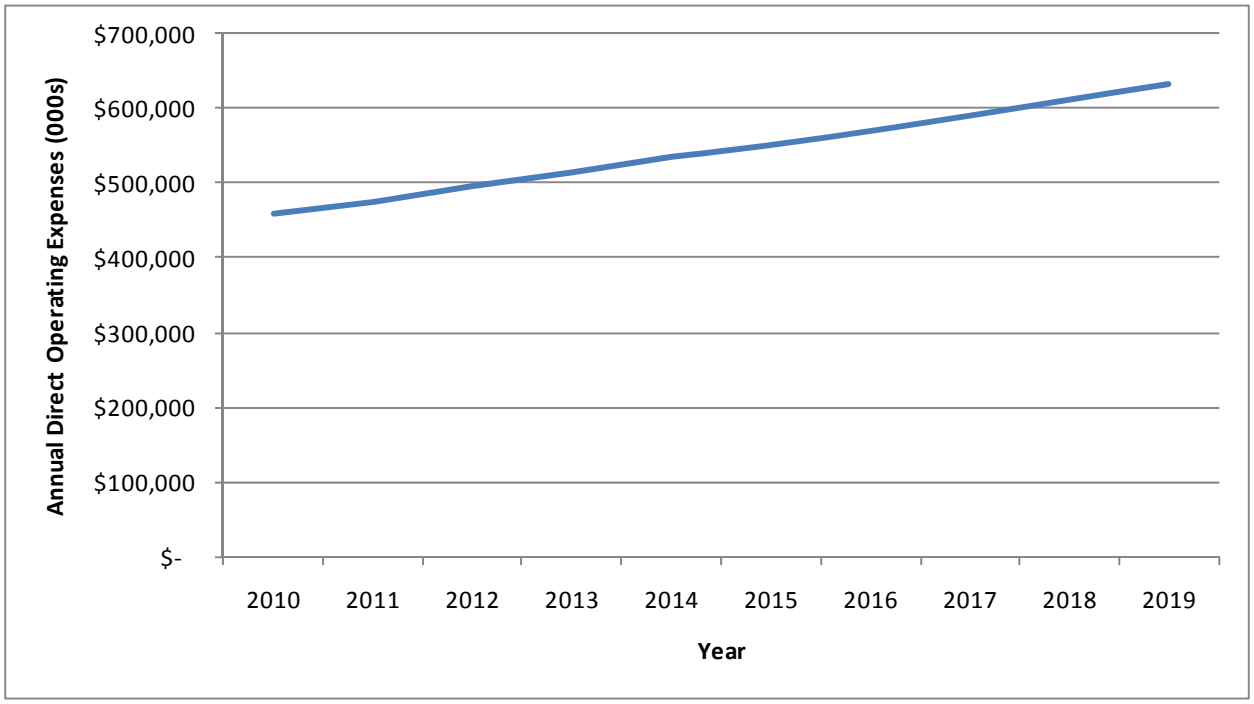
expansion. Beginning in 2001 and continuing through 2006, however, MDT's direct operating expenses doubled. This was a result of both increased unit costs for providing service (particularly labor and health benefits costs) as well as expanded Metrobus service following the passage of the 2002 People's Transportation Plan. In addition, like many transit agencies across the country, MDT is dealing with growth in paratransit expenses that are well above inflation (and well above the growth in revenues intended to support the service).

As of the writing of this TDP Major Update, however, MDT is undertaking major efforts to cut the growth of operating expenses. As noted above, a major service efficiency and route restructuring effort is poised to cut approximately $15 million in Metrobus operating costs from the annual budget. MDT has also implemented efficiencies in its non-operating divisions in order to spend more of its limited funding on direct service provision. This effort has become especially critical as property, sales, and gasoline tax revenue growth has declined during the recession.

Projected Future Operating Expenses

Apart from the expected 10 percent (10%) increase in Metrorail service associated with the opening of the MIC-EH connector in 2012, MDT is not projecting any increase in service levels for Metrobus, Metrorail, or Metromover over the ten year horizon of the TDP Major Update. Therefore, nearly all growth in operating expenses at MDT will come from inflationary cost increases. The projected growth in total direct operating expenses is shown in Figure 10-2 below. By FY19, MDT's direct operating expenses for its four transit modes are projected to have grown to $625 million, an average annual growth rate of 3.6 percent (which includes an above-average 4.4% total increase in 2012 due to the Metrorail expansion).

Figure 10-2: Projected Growth in MDT Direct Operating Expenses, FY 2010-2019



(Source: 2009 PTP Pro Forma)

The key inflation assumptions that drive the cost projections, as included in the Pro Forma, are also summarized below in Table 10-7.

Table 10-7: MDT Operating Expense Inflation Assumptions

Expense Item	Annual Inflation Rate
Labor Increase - Merit	2.2% (before 2015) 2.0% (2015 and after)
Labor Increase - COLA	0% (2010-2011) 2.0% (2012-2013) 3.0% (2014 and after)
Health Insurance	10% (2010-2014) 3.5% (2015 and after)
Major Support Line Items	2.5%
Inventory	1.0%
Fuel	1.0%
Maintenance	3.0%

(Source: 2009 PTP Pro Forma)

10.2.2 Operating Revenues

Current Operating Revenues

MDT's transit operations are supported by a range of federal, state, local, and directly-generated revenue streams. Table 10-8 shows the projected agency operating revenues for FY 2010 by major category.

Table 10-8: MDT Projected FY 2010 Operating Revenues

Operating Revenue Category		Amount (000s)
Fare Revenues	$	113,413
Other Operating Revenues	$	8,300
Federal Grant Funds Used for PM	$	63,038
State Block Grant	$	18,732
Other State Operating Support	$	9,029
PTP Surtax	$	169,700
County General Funds	$	148,132
Local Option Gas Tax	$	13,809
Interest, Reimbursements & Other	$	47,348
TOTAL	**$**	**591,501**

(Source: 2009 PTP Pro Forma)

MDT's major revenue sources are briefly described below.

Fare Revenues

MDT's transit services are expected to generate fare revenues of approximately $113 million in FY 2010. When compared to the services' direct operating expenses of over $480 million, this results in a projected farebox recovery ratio of approximately 23 percent. Given the significant amount of free service that MDT currently offers (via the Metromover and through the Golden Passport and Patriot Passport programs), as well as the relatively low-density environment in the County through which much of the agency's service operates, this result is to be expected. MDT has also struggled in recent years with fare evasion, but the upcoming major capital project to replace the fare collection equipment is intended to address this problem and improve farebox recovery without negatively impacting ridership.

Federal Grant Funds

MDT currently chooses to use nearly all of its federal capital grant funds for preventative maintenance (PM) via a force account as detailed in FTA Circular 5010 1D, which is categorized as an operating expense, rather than for capital purchases. A force account as detailed in FTA Circular 5010 1D requires transit agencies to establish a program to monitor and justify the use of its workforce on projects where the transit agency determined the use of its own workforce would be either more efficient or effective in completing all or a portion of a project than a third party

contractor. The use of these funds for PM by transit agencies is common across the country, as many agencies struggle to secure sufficient revenue streams for agency operations.

PTP Surtax

The half-cent PTP surtax was approved by the voters in 2002 and immediately became a principal funding source for MDT. The original intent of the PTP surtax was largely to fund capital projects, but it has also been used to support expanded bus operations in the County. The Board of County Commissioners (BCC) recently approved a measure allowing up to 90 percent (90%) of the PTP surtax to be used for operations, with 10 percent (10%) dedicated for capital improvements.

County General Funds

As a County department, MDT receives significant funding directly from the County General Fund. The BCC has committed to increasing the general funds that MDT receives (known as "maintenance of effort") by 3.5 percent annually in order to support the continued provision and usage of transit in the County. The County also provides a small additional amount of funding to support SFRTA, which operates the Tri-Rail commuter rail service, and those funds are included here.

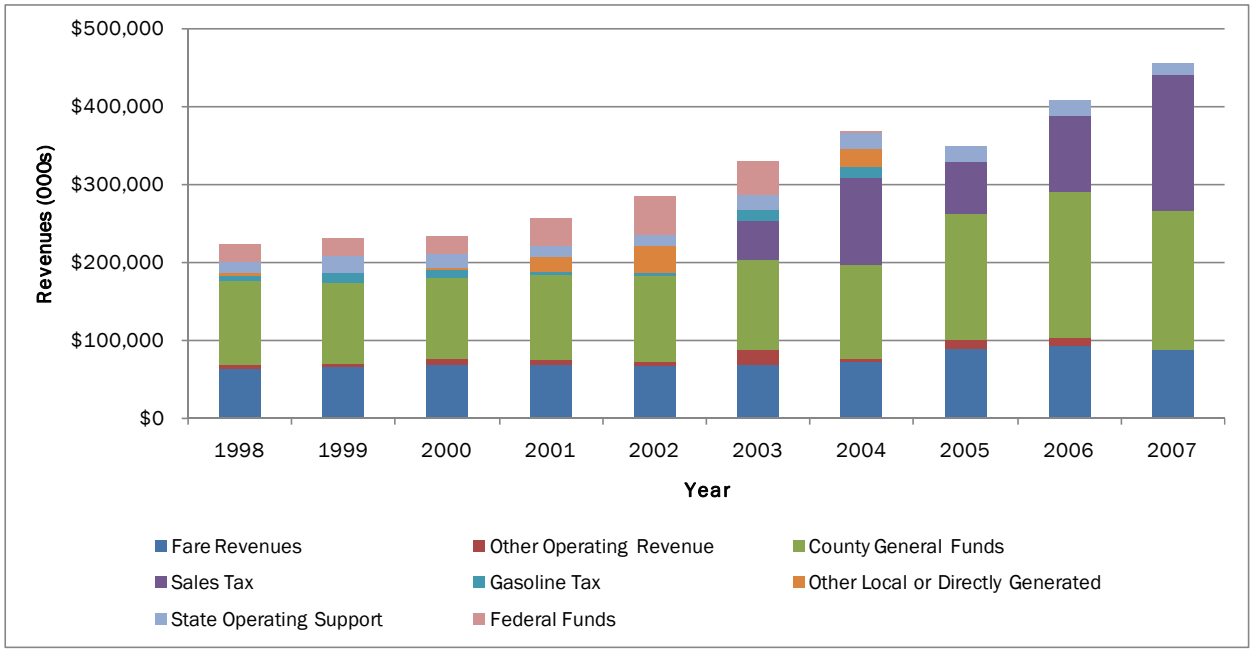
All Other Funds

As indicated above, MDT also receives other operating revenues (from sources such as concessions, advertising, and parking); state support, in the form of a block grant, urban corridor funds, and funds to assist the transportation disadvantaged; a majority of the proceeds from a local option gas tax (LOGT), currently imposed at a rate of three (3) cents per gallon; and other interest payments and intra-County reimbursements.

Historical Growth in Operating Revenues

MDT displayed somewhat erratic growth in operating revenues over the last ten year period from 1998 to 2007, as Figure 10-3 shows.

Figure 10-3: Change in MDT Operating Revenues (1998-2007)



(Source: National Transit Database)

Note: Between 2003 and 2004, there was a change in the way MDT programmed its federal funding from a revenue stream to a reimbursement to expenses.

Most notably, fare revenues showed only very modest growth prior to 2005, reflecting both the agency's policy at the time of imposing very infrequent fare increases as well as the slow growth in passenger trips on the system. Fare revenues have grown more recently in response to programmed fare increases.

What is clear, however, is that the growth in agency operating expenses experienced since 2002 has been primarily funded by two sources – the dedicated PTP surtax and the County General Fund. Both of these sources (meaning primarily the *ad valorem* property tax for the General Fund) have been hit hard by the current recession and housing market collapse, which explains the need for the restructuring and cost-cutting which the agency is currently undertaking.

Projected Future Operating Revenues

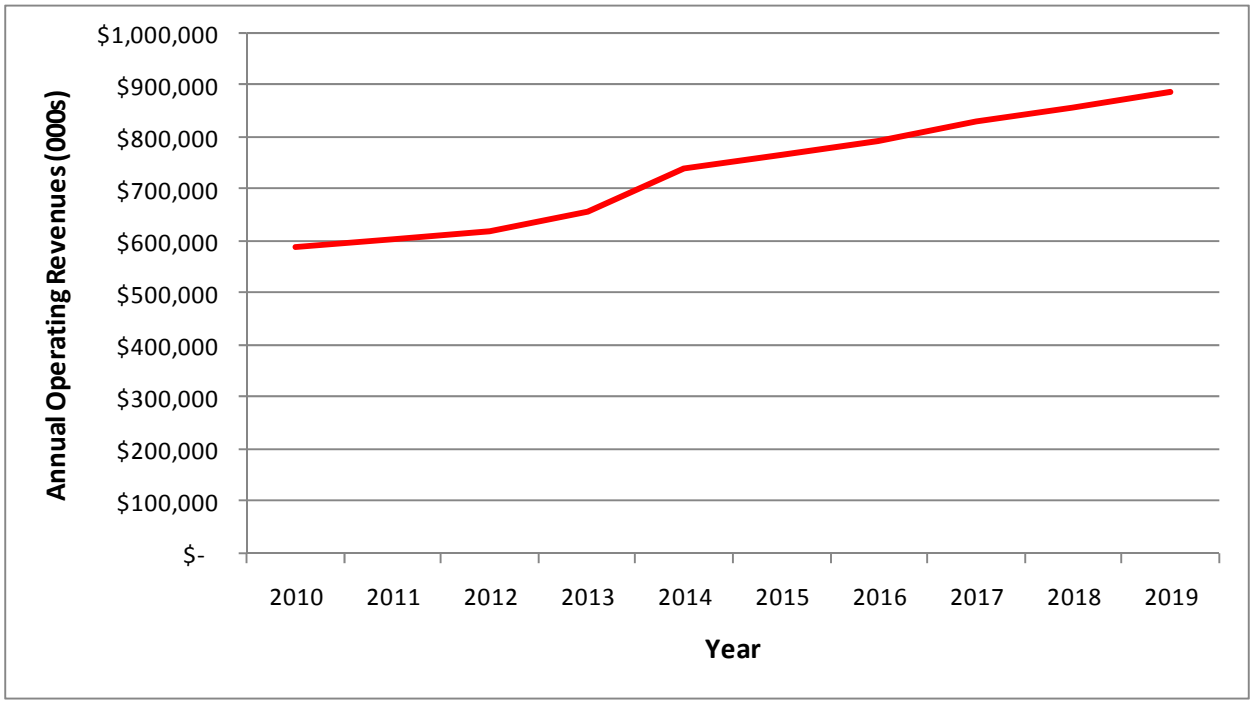
Revenue growth in the future is also projected to be somewhat more uneven than operating expense growth. In the near term, tax revenue growth will continue to be hampered by the recession. After that, in years without any major policy changes, total available funding is expected to grow at slightly over three percent (3%) annually. However, MDT does foresee two separate major policy actions related to funding during the upcoming ten year TDP Major Update planning horizon:

- *Regular programmed fare increases*: The BCC recently approved a policy for regular fare increase for MDT in order to keep up with inflation. The Pro Forma projects a 25 cent increase in the base fare (from its current level of $2.00 to

$2.25) in 2013, with another 25 cent increase in 2017. These increases have the effect of bumping up the overall revenue growth rate in those years.

- *Additional local funding*: In 2014, MDT anticipates that it will receive additional funding to support operations from two local sources. The first is the local option gas tax (LOGT). Miami-Dade County currently imposes only 3 of the 5 cents available to it under that fuel tax, and the Pro Forma assumes that the other 2 cents will be approved and made available for MDT's use in 2014. The value of those 2 cents in 2014 is approximately $14 million annually. The second source is additional County General Funds, which are also assumed to become available in 2014 and would require a Board action. This new County funding is estimated at approximately $45 million in the first year. Figure 10-4 shows the growth in total projected operating funds for MDT.

Figure 10-4: Projected Growth in MDT Operating Revenues, FY 2010-2019



(Source: 2009 PTP Pro Forma)

The critical funding growth assumptions that drive the Pro Forma results are also outlined below.

Table 10-9: MDT Operating Revenue Growth Assumptions

Revenue Item	Annual Growth Rate
PTP Surtax	2011: 1.5% 2012: 3.0% 2013: 4.0% 2014+: 5.0%
General Funds (Maintenance of Effort)	3.5%
Fare Revenue (Trip Growth)	1.00%
State Block Grant and Transp. Disadv. Funds	2.00%
Federal Funds	2011-2015: 2.75% 2015 and after: 2.5%
Local Option Gas Tax	1.50%

(Source: 2009 PTP Pro Forma)

10.2.3 Summary of Baseline Operating Budget

The operating budget as presented in the 2009 Pro Forma for the ten-year period from FY 2010 to FY 2019 is balanced. This means that all projected operating expenses are covered by the forecasted revenues from various local and non-local sources, and there is no funding gap. This balanced budget is achieved by a combination of cost efficiencies and service restructuring in Metrobus; an avoidance of any major service expansion except for the MIC-Earlington Heights Metrorail connector service; and aggressive use of available local funding sources (LOGT and general funds) during the second five years of the TDP.

The following table presents a tear by year comparison of operating costs and revenues over the ten-year planning horizon of the TDP Major Update.

Table 10-10: MDT Operating Budget (FY 2010 - FY 2019)

Operating Revenues	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Fare Revenues	$113,413	$120,516	$122,921	$136,635	$138,001	$139,382	$140,775	$154,810	$156,358	$157,922	$1,380,735
Other Operating Revenues	8,300	8,383	8,467	8,551	8,637	8,723	8,811	8,899	8,988	9,078	86,836
Federal Grant Funds Used for PM	63,038	65,985	69,284	72,748	76,385	80,204	82,209	84,264	86,371	88,530	769,019
State Block Grant	18,732	19,107	19,489	19,879	20,276	20,682	21,095	21,517	21,948	22,386	205,110
Other State Operating Support	9,029	9,188	9,349	9,514	9,683	9,854	10,029	10,208	10,390	10,576	97,820
PTP Surtax	169,700	174,791	181,783	190,872	200,415	210,436	220,958	232,006	243,606	255,786	2,080,353
County General Funds	148,132	153,259	158,566	164,059	214,652	222,781	231,229	240,008	249,131	258,613	2,040,429
Local Option Gas Tax	13,809	16,684	16,049	17,798	32,711	36,038	36,579	37,128	37,685	38,250	282,731
Interest, Reimbursements & Other	47,348	19,282	19,689	19,991	21,196	22,143	23,319	24,297	25,378	26,687	249,330
Reserve Carryover	-	17,425	16,992	17,271	17,635	18,017	18,417	18,838	19,280	19,744	163,619
Total Revenues	**$591,501**	**$604,619**	**$622,589**	**$657,318**	**$739,592**	**$768,260**	**$793,422**	**$831,975**	**$859,135**	**$887,572**	**$7,355,983**

Operating Expenses	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Metrobus	$213,750	$224,078	$232,214	$240,795	$249,305	$258,225	$266,614	$275,498	$284,702	$294,290	$2,539,471
Metrorail	57,466	58,732	64,996	67,260	70,063	71,198	73,776	76,474	79,296	82,283	701,544
Metromover	9,449	9,687	10,046	10,422	10,883	11,294	11,725	12,175	12,645	13,140	111,465
STS/Paratransit	47,463	48,892	50,400	51,957	53,585	55,235	56,936	58,691	60,501	62,369	546,031
Operational Support	102,592	105,411	108,705	112,158	116,577	120,298	124,160	128,192	132,378	137,212	1,187,684
Customer Support	6,290	6,495	6,783	7,087	7,467	7,798	8,144	8,508	8,888	9,292	76,753
Executive Support	1,382	1,418	1,481	1,547	1,630	1,706	1,786	1,870	1,959	2,052	16,830
Engineering	21,257	21,719	22,627	23,582	24,770	25,846	26,974	28,156	29,393	30,697	255,020
Municipal Contribution	33,940	34,958	36,357	38,174	40,083	42,087	44,192	46,401	48,721	51,157	416,071
CITT Staff	2,514	2,589	2,667	2,747	2,830	2,914	3,002	3,092	3,185	3,280	28,820
SFRTA Contribution	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	4,235	42,350
Deficit & Loan Repayment	29,050	6,290	6,290	6,290	6,290	6,290	6,290	-	-	-	66,790
Public Works Support	2,735	2,817	2,902	2,989	3,078	2,171	2,236	2,303	2,372	2,443	26,045
Debt Service	41,129	41,129	60,380	61,429	56,479	82,753	85,758	186,665	204,177	212,361	1,032,260
Reserves	17,425	16,992	17,271	17,635	18,017	18,417	18,838	19,280	19,744	20,231	183,851
Total Expenses	**$590,675**	**$585,442**	**$627,353**	**$648,307**	**$665,290**	**$710,469**	**$734,668**	**$851,539**	**$892,197**	**$925,043**	**$7,230,983**

Annual Operating Surplus/(Deficit)	$826	$19,177	($4,765)	$9,011	$74,302	$57,792	$58,754	($19,564)	($33,063)	($37,470)	
Cumulative Operating Surplus/(Deficit)	$826	$20,003	$15,239	$24,250	$98,552	$156,343	$215,097	$195,533	$162,471	$125,000	

(Source: 2009 PTP Pro Forma)

10.3 Baseline Capital Expenditures and Funding Sources

10.3.1 Planned Capital Expenditures

MDT's planned capital expenditures for the period 2010 to 2019 are described in more detail in the ten year implementation plan chapter of this TDP major Update. For the purposes of the financial plan, the projects can be usefully divided into two groups – those projects which will be financed with PTP-backed debt, and those projects which will be paid for on a "cash" basis with funding from various sources. In the case of very large projects (such as the MIC-EH connector) or projects which are ongoing throughout the plan (such as bus acquisition and replacement), these projects may be funded by a combination of debt proceeds and cash. A summary of the two groups of projects is provided below with costs in projected year of expenditure dollars.

Table 10-11: Planned MDT Capital Expenditures FY 2010-2019

PTP Debt-Financed Capital Projects	Total Cost FY10-FY19 (000s)
Bus Acquisition	$ 322,999
Fare Collection Equipment	$ 23,716
Mover Vehicle Replacement	$ 27,396
Central Control Overhaul	$ 26,756
MIC-EH Connector	$ 300,120
Rail Vehicle Replacement	$ 374,556
Track and Guidway Rehab	$ 31,670
IRP (Infra. Renewal Prog.)	$ 336,544
All Other Projects	$ 45,181
TOTAL	**$ 1,488,938**

Pay-as-you-go ("cash") Capital Projects	Total Cost FY10-FY19 (000s)
Bus Acquisition	$ 147,217
MIC-EH Connector	$ 61,083
All Other Projects	$ 92,697
TOTAL	**$ 300,997**

(Source: 2009 PTP Pro Forma)

Many of these projects, such as the vehicle replacements (for bus, rail, and Mover) and the guideway rehabilitation, will greatly improve the quality and longevity of the existing MDT transit system. However, most of the projects shown above are scheduled to be completed on or before 2015. After 2015, the capital program consists only of scheduled bus acquisitions and the Infrastructure Renewal Program (IRP), which is the agency's long-term projection of future rehabilitation and replacement needs throughout the system, as shown in Table 10-17.

Table 10-12: MDT Annual Funded Capital Projects

PTP Debt-Financed Capital Projects	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total Cost FY10-FY19 (000s)
Bus Acquisition	$ 4,453	$ 15,259	$ 5,462	$ 4,855	$ 49,766	$ -	$ 60,083	$ 54,014	$ 60,083	$ 69,023	$ 322,999
Fare Collection Equipment	$ 22,876	$ -	$ 840	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,716
Mover Vehicle Replacement	$ 11,122	$ 15,594	$ 680	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 27,396
Central Control Overhaul	$ 11,245	$ 12,719	$ 2,792	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,756
MIC-EH Connector	$ 97,449	$ 112,830	$ 73,912	$ 15,929	$ -	$ -	$ -	$ -	$ -	$ -	$ 300,120
Rail Vehicle Replacement	$ 37,260	$ 22,760	$ 64,530	$ 45,709	$ 90,166	$ 93,003	$ 21,128	$ -	$ -	$ -	$ 374,556
Track and Guidway Rehab	$ 6,414	$ 7,413	$ 6,868	$ 5,917	$ 3,899	$ 1,159	$ -	$ -	$ -	$ -	$ 31,670
IRP (Infra. Renewal Prog.)	$ 10,115	$ 12,322	$ 9,704	$ 12,430	$ 3,793	$ 38,299	$ 92,684	$ 68,815	$ 42,153	$ 46,230	$ 336,544
All Other Projects	$ 27,714	$ 15,865	$ 1,602	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 45,181
TOTAL	**$ 228,648**	**$ 214,762**	**$ 166,390**	**$ 84,840**	**$ 147,624**	**$ 132,461**	**$ 173,895**	**$ 122,829**	**$ 102,236**	**$ 115,253**	**$ 1,488,938**

Pay-as-you-go ("cash") Capital Projects	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total Cost FY10-FY19 (000s)
Bus Acquisition	$ 22,045	$ 21,318	$ 37,097	$ 66,757	$ -	$ -	$ -	$ -	$ -	$ -	$ 147,217
MIC-EH Connector	$ 23,644	$ 23,697	$ 13,742	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 61,083
All Other Projects	$ 39,386	$ 17,732	$ 16,808	$ 8,231	$ 7,573	$ 2,967	$ -	$ -	$ -	$ -	$ 92,697
TOTAL	**$ 85,075**	**$ 62,747**	**$ 67,647**	**$ 74,988**	**$ 7,573**	**$ 2,967**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 300,997**

10.3.2 Capital Funding Sources

As noted above, MDT's capital projects over the next ten years will either be debt-financed (grant funded) or funded on a pay-as-you-go basis from various sources. The debt financing is backed by the PTP surtax revenues, which have been projected in the previous sections of this financial plan. The "cash"-funded projects will be supported by a combination of funding sources, which are shown in the figure below. All of these funding sources for pay-as-you-go capital will be concluded by 2015.

Table 10-13: Projected "Cash" Revenue Sources for Capital Projects, FY 2010-2019

Capital Funding Source	Total Amount (000s)
Building Better Communities (BBC)	$ 1,046
Future Bus Financing	$ 125,172
FTA Section 5307/5309 Formula Grant	$ 18,679
CI-LOGT PAY GO	$ 11,868
Pay Go Surtax	$ 6,092
FDOT Funds	$ 138,140
TOTAL	**$ 300,997**

10.3.3 Summary of Baseline Capital Plan

The capital budget as presented in the 2009 Pro Forma for the ten-year period from FY 2010 to FY 2019 is balanced. This means that there is no baseline capital funding gap and that all projected capital expenditures will be funded with either PTP surtax debt proceeds or on a pay-as-you-go basis with funds available from a variety of sources. This balanced budget is achieved by a combination of aggressive borrowing against the PTP surtax (ultimately requiring the inclusion of additional LOGT and general funds in MDT's budget, as described above effective in 2014, to guarantee debt coverage effective 2014), as well as reductions and even eliminations of planned capital projects that had been included in previous TDPs.

The following table presents a tear by year comparison of capital expenditures and capital revenues over the ten-year planning horizon of the TDP Major Update.

Table 10-14: MDT Capital Budget (FY 2010 - FY 2019)

Capital Revenues	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
PTP Bond Program	$228,648	$214,762	$166,390	$84,840	$147,624	$132,461	$173,895	$122,829	$102,236	$115,253	$1,488,938
Building Better Communities (BBC)	1,046	-	-	-	-	-	-	-	-	-	1,046
Future Financing	-	21,318	37,097	66,757	-	-	-	-	-	-	125,172
FTA Section 5307/5309 Formula Grant	2,961	2,958	3,106	3,262	3,425	2,967	-	-	-	-	18,679
Local Option Gas Tax	3,391	1,376	2,914	2,113	2,074	-	-	-	-	-	11,868
PTP Surtax (pay-as-you-go)	6,092	-	-	-	-	-	-	-	-	-	6,092
FDOT Funds	$71,585	$37,095	$24,530	$2,856	$2,074	$0	$0	$0	$0	$0	138,140
Total Capital Project Revenues	**$313,723**	**$277,509**	**$234,037**	**$159,828**	**$155,197**	**$135,428**	**$173,895**	**$122,829**	**$102,236**	**$115,253**	**$1,789,935**
PTP Debt-Financed Projects	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**Total**
Bus Acquisition	$4,453	$15,259	$5,462	$4,855	$49,766	$0	$60,083	$54,014	$60,083	$69,023	$322,999
Fare Collection Equipment	22,876	-	840	-	-	-	-	-	-	-	23,716
Mover Vehicle Replacement	11,122	15,594	680	-	-	-	-	-	-	-	27,396
Central Control Overhaul	11,245	12,719	2,792	-	-	-	-	-	-	-	26,756
MIC-EH Connector	97,449	112,830	73,912	15,929	-	-	-	-	-	-	300,120
Rail Vehicle Replacement	37,260	22,760	64,530	45,709	90,166	93,003	21,128	-	-	-	374,556
Track and Guidway Rehab	6,414	7,413	6,868	5,917	3,899	1,159	-	-	-	-	31,670
IRP (Infra. Renewal Prog.)	10,115	12,322	9,704	12,430	3,793	38,299	92,684	68,815	42,153	46,230	336,544
All Other Projects	27,714	15,865	1,602	-	-	-	-	-	-	-	45,181
Pay-as-you-go ("cash") Projects											-
Bus Acquisition	22,045	21,318	37,097	66,757	-	-	-	-	-	-	147,217
MIC-EH Connector	23,644	23,697	13,742	-	-	-	-	-	-	-	61,083
All Other Projects	39,386	17,732	16,808	8,231	7,573	2,967	-	-	-	-	92,697
Total Capital Project Expenditures	**$313,723**	**$277,509**	**$234,037**	**$159,828**	**$155,197**	**$135,428**	**$173,895**	**$122,829**	**$102,236**	**$115,253**	**$1,789,935**
Capital Funding Surplus/(Deficit)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

(Source: 2009 PTP Pro Forma)

10.4 New Service Initiatives and Additional Funding Needs

As described in greater detail in the Implementation Plan chapter, MDT has identified three primary initiatives – either expanded operations or increased capital investments – that are currently unfunded, but which represent important areas of need for the agency. These three areas are:

- bus route improvements, including modifications to existing routes and the introduction of new routes, which have both a capital cost component and an operating cost component;
- significant capital investments in eleven (11) priority travel corridors that will improve customer comfort and Metrobus service quality and reliability; and,
- additional Capital Improvement Program (CIP) projects that represent selective improvements to the existing transit network.

The necessary capital and operating funds to support these unfunded service areas over the ten-year TDP planning period is presented below. These projects have been described in greater detail previously in the Implementation Plan chapter, so a full description is not provided here. In addition, the project costs here are presented in year-of-expenditure (YOE) dollars, according to the planned implementation schedules and inflation assumptions.

10.4.1 Bus Route Improvements

MDT has identified a significant number of improvements to existing routes as well as entirely new routes that it will implement if and when funding becomes available. The projected year-of-expenditure costs of implementing these services are presented in Table 10-15 below. These improvements have both associated capital costs and operating costs. The operating costs are recurring in every year after the service is introduced, and these costs are assumed to grow with inflation at 3.5 percent annually, which is roughly the rate of inflation for existing Metrobus service as projected in the Pro Forma. The capital costs, which represent the purchase of new hybrid buses to support the services is based on the 15 year bus replacement plan. A 20 percent (20%) spare ratio is assumed, and bus costs are assumed to be $600,000 per 40 ft. hybrid vehicle in 2009 dollars, which grows at a five percent (5%) annual cost inflation over the period of the TDP Major Update.

Table 10-15: Proposed Bus Route Improvements (Unfunded)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Existing Routes											
Operating Costs	$0.2	$1.6	$5.6	$6.8	$7.1	$7.3	$7.6	$8.3	$8.7	$9.1	$62.2
Capital Costs	$0.0	$0.0	$5.8	$3.5	$0.0	$0.0	$0.0	$3.2	$1.1	$0.0	$13.6
New Routes											
Operating Costs	$7.8	$9.8	$13.6	$18.0	$18.7	$19.3	$20.0	$20.7	$21.4	$22.2	$171.4
Capital Costs	$24.9	$2.4	$7.5	$7.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$41.8
TOTAL (millions)	**$33.0**	**$13.8**	**$32.5**	**$35.3**	**$25.7**	**$26.6**	**$27.5**	**$32.2**	**$31.3**	**$31.2**	**$289.2**

(Source: MDT; YOE capital costs assume a 5% annual cost inflation rate; YOE operating costs assume a 3.5% annual cost inflation rate)

10.4.2 Priority Corridors

The eleven identified priority corridors are proposed to be implemented at the rate of approximately one corridor per year beginning in 2011, with two corridors being implemented in each of 2018 and 2019. Table 10-16 shows the unfunded capital cost associated with these priority corridor improvements.

Table 10-16: Proposed Investments in Priority Corridors (Unfunded)

Year of imple-mentation	Priority Transit Corridor	Base year (2009) capital cost (millions)	Year-of-expenditure capital cost (millions)
2011	US 1 (Biscayne Boulevard) from Downtown Miami to County line	$97.0	$106.9
2012	NE 167th/163rd/Sunny Isles Boulevard from Golden Glades Tri-Rail Station to Collins Avenue	$38.7	$44.8
2013	NW 135th Street from NW 12th Avenue to US 1	$24.2	$29.4
2014	NW 36th Street/Julia Tuttle Causeway from Tri-Rail Hialeah Market Station to Collins Avenue	$62.9	$80.3
2015	West 12th Avenue from Okeechobee Metrorail Station to NW 186th Street	$48.1	$64.5
2016	SW 107th Avenue from SW 40th Street to NW 25th Street	$29.4	$41.3
2017	Flagler Street from SW 107th Avenue to Downtown	$74.8	$110.6
2018	SW 8th Street from SW 107th Avenue to Downtown	$73.2	$113.5
2018	SW 72nd Street from 117th Avenue to US 1/Busway	$38.1	$59.1
2019	Kendall Drive from 137th Avenue to US 1/Busway	$44.6	$72.6
2019	Coral Reef Drive from 137th Avenue to US 1/Busway	$30.3	$49.3
TOTAL		**$561.3**	**$772.4**

(Source: MDT; YOE capital costs assume a 5% annual cost inflation rate)

10.4.3 CIP Projects

MDT has identified four (4) projects from the near-term Capital Improvement Program (CIP) that are a priority for the agency to achieve its service objectives, but that are not able to be funded with current revenues. The timing for these projects is not set, but they are targeted for implemented around FY 2012 if funding becomes available, so that is the assumed implementation year shown here. Table 10-17 shows the unfunded capital cost associated with these CIP projects.

Table 10-17: Additional Capital Improvement Program (CIP) Projects (Unfunded)

Year	Project Description	Base Year (2009) Cost (millions)	Year-of-expenditure cost (millions)
2012	Bus Pullout Bays throughout Miami-Dade County	$0.8	$0.9
2012	Electronic Information Kiosks	$0.5	$0.6
2012	Park and Ride Facilities throughout Miami-Dade County	$3.6	$4.2
TOTAL		**$4.9**	**$5.7**

(Source: MDT; capital costs are in YOE dollars assuming a 5% capital cost inflation rate)

10.4.4 Total Unfunded Needs

MDT's total unfunded needs over the next ten years – covering bus service improvements, capital investment in priority travel corridors, and CIP projects – totals approximately $1.0 billion in year-of-expenditure dollars.

Table 10-18: Total Unfunded Needs, FY2010-2019 (YOE millions)

Service Improvement Category	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total Unfunded Needs FY10-19
Bus Improvements (Operating)	$ 8.0	$ 11.4	$ 19.1	$ 24.8	$ 25.7	$ 26.6	$ 27.5	$ 29.0	$ 30.2	$ 31.2	$ 233.7
Bus Improvements (Capital)	$ 24.9	$ 2.4	$ 13.3	$ 10.5	$ -	$ -	$ -	$ 3.2	$ 1.1	$ -	$ 55.5
Priority Corridors (Capital)	$ -	$ 106.9	$ 44.8	$ 29.4	$ 80.3	$ 64.5	$ 41.3	$ 110.6	$ 172.6	$ 121.9	$ 772.4
CIP Projects (Capital)	$ -	$ -	$ 5.7	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5.7
TOTAL UNFUNDED NEEDS	**$ 33.0**	**$ 120.7**	**$ 83.0**	**$ 64.8**	**$ 106.0**	**$ 91.1**	**$ 68.9**	**$ 142.8**	**$ 203.9**	**$ 153.1**	**$ 1,067.2**

10.5 FDOT TDP Financial Planning Tool

FDOT has provided a spreadsheet-based financial planning tool to all Florida transit agencies for use in the development of their TDP's. The Financial Plan tool is intended to provide a standard format in which Florida transit systems can submit their TDP financial plans. MDT has taken the detailed expense and revenue projections of the PTP Pro Forma (as summarized in the sections above) and modified them for entry into the Financial Plan tool.

The Financial Plan tool is prepared in Microsoft Excel format and consists of seven components. Each component is included in the TDP financial plan tool as a separate worksheet. The financial plan tool components are briefly described below.

- **Inputs:** This tab documents the operating and capital cost assumptions that drive the future cost and revenue projections for MDT.
- **Service Plan**: This tab summarizes information for existing services by mode and new alternative services for the current year. Annual operating costs for each service (based on vehicle miles and vehicle hours of service) are calculated in the Service Plan Element.
- **Implementation Plan**: This tab displays the time frames for implementing proposed needs and projects. This component takes the annual operating costs for the current year, applies the appropriate inflation rate, and projects the cost for implementing new service alternatives and other existing service improvements for future TDP planning years.
- **Operating Cost Element:** This tab combines the results of the Implementation Plan and the Service Plan Components to present a total operating cost projection for the agency.
- **Capital Cost Element:** This tab summarizes the capital cost estimates associated with new service alternatives during the planning period. These costs includes new, replacement and spare vehicles as well as transit infrastructure costs.
- **Revenue Element:** This tab summarizes the anticipated federal, state, local, and private revenue sources that will support MDT's transit services. Total operating and capital costs from previous tabs are carried forward to the Revenue Element. Budget surpluses or shortfalls throughout the planning period are also determined in this section.
- **Final Summary:** A Cost Summary table and a Revenue Summary table for the 10-year planning period are presented as the tool's final outputs. Based on the costs and revenue summaries, funded and/or unfunded needs are also shown in this section of the spreadsheet.

10.6 Future Funding and Financing Options

This section of the TDP Major Update financial chapter outlines the existing funding sources for MDT as compared to its peers (both within Florida and nationally), and then presents an assessment of potential future options for the funding and/or

financing of the service improvements described in the TDP that are currently unfunded.

10.6.1 Sources of Funding for MDT and Peer Transit Agencies

Data from the FTA National Transit Database for 2007 (the latest data available) are summarized below in Table 10-19 are the selected agencies, in addition to MDT itself: This comparative analysis identifies the sources of funding that both Florida and national transit agencies typically utilize for system operations

Table 10-19: Peer Transit Agencies

Florida Agencies		National Systems
Manatee County Area Transit	City of Ocala, Florida	Washington Metropolitan Area Transit Authority
Pinellas Suncoast Transit Authority	Polk County Transit Services Division	Maryland Transit Administration
Lee County Transit	Okaloosa County Board of County Commissioners	Metropolitan Atlanta Rapid Transit Authority
Broward County Office of Transportation	Collier Area Transit	Dallas Area Rapid Transit
Gainesville Regional Transit System	Hernando County Board of County Commissioners	Denver Regional Transportation District
Lakeland Area Mass Transit District	St Johns County, Florida, Board of County Commissioners	San Francisco Bay Area Rapid Transit District
County of Volusia, dba: VOTRAN	Space Coast Area Transit	
Central Florida Regional Transportation Authority	Pasco County Public Transportation	
City of Tallahassee	Jacksonville Transportation Authority	
PalmTran (Palm Beach County)	Hillsborough Area Regional Transit Authority	
Escambia County Area Transit	Sarasota County Area Transit	

Figure 10-5 summarizes the sources of operating funding for MDT, Florida agencies, and national transit systems. MDT's primary sources of operating revenue are systemwide fares (19%), sales tax (37%), and local allocated funds (general fund revenue, in the case of MDT) (38%). Among Florida agencies, the primary sources that are similar are fares (19%) and general fund revenue (28%); sale tax revenues are much lower (3%) and other sources that are particularly important include local gas tax (12%) and local property tax (14%); note that property taxes are a primary source of general fund revenues. Among rail peers, a much larger portion of revenues are from fares (33%), followed by sales tax revenues (27%).

Figure 10-5: Sources of Operating Funding

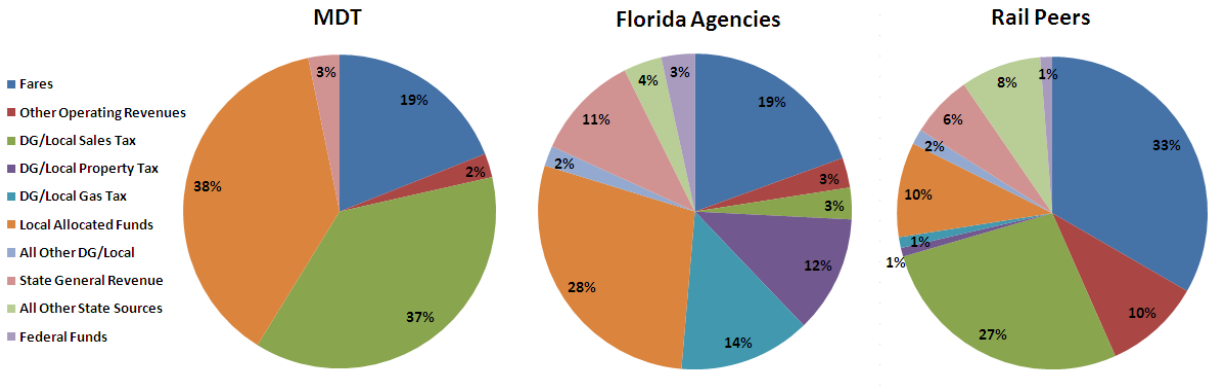
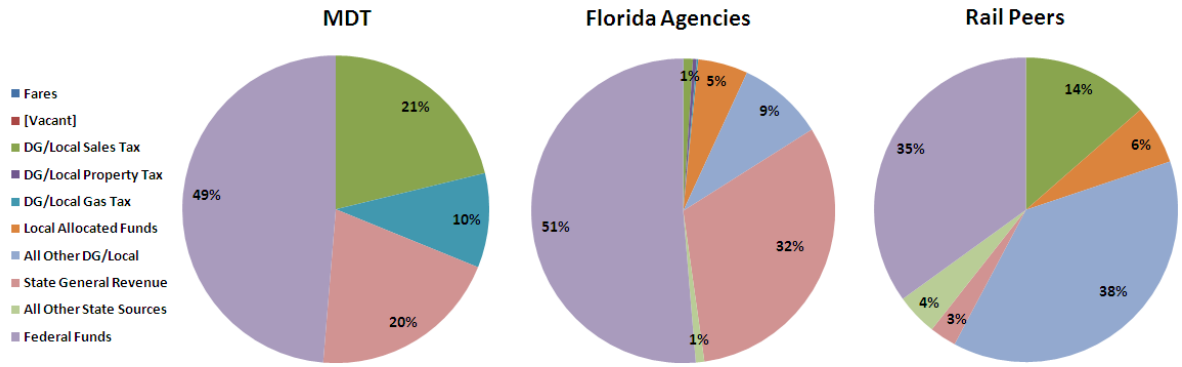


Figure 10-6 summarizes sources of capital funding for MDT, Florida agencies, and national rail peers. The primary sources for MDT were local sales tax (21%), local gas tax (10%), state general revenue (20%), and federal funds uses for capitalization of preventive maintenance (49%). Among Florida agencies, the largest sources were local funds (5% allocated and 9% other), state grants (32%), and federal grants (51%). Among national rail peers, the largest sources include local sales (14%), other local funds (38%), and federal grants (35%).

Figure 10-6: Sources of Capital Funding



10.6.2 Analysis of Individual Funding, Financing, and Implementation Options

Individual funding, financing and implementation options can be evaluated prior to the development of the financing plan. Options can be evaluated using a set of criteria which recognizes the varied issues which must be considered prior to developing a funding plan. These evaluation criteria are summarized below according to five principal issues which need to be addressed when developing a funding/financing plan:

- **Financial Criteria:**
  - **Revenue Yield:** The dollar magnitude of revenues a funding alternative may be expected to generate at different rates and coverage.
  - **Stability of Revenue Flow:** The ability to generate a stable revenue stream over time which is not subject to major fluctuations.
  - **Growth Potential:** The ability to respond to growth in the economy.
  - **Response to Inflation:** The ability to respond to the general rate of inflation.
- **Political Criteria**
  - **Public Acceptance:** The anticipated degree of opposition to a funding, financing, or implementation alternative. This criterion considers the public's perception of dedicating a funding source, or issuing debt for the proposed transit investment.
  - **Equity:** The match of burden to benefits and the ability to pay, which frequently is based on the progressivity, proportionality, or regressivity of a funding/financing alternative.
  - **Incentive and Distortion Effects:** The probable impacts of a funding alternative impact on individual behaviors, location decisions and economic growth.
  - **Benchmarking:** Prevalence of applications of the funding, financing and implementation options in neighboring states and/or local jurisdictions.
- **Legal/Regulatory:**
  - **Legality:** The legal status of the funding, financing and implementation alternatives with respect to state statute and an assessment of the ease of implementation.
  - **Regulatory Authorization:** The relationship of the funding, financing and implementation options to legislative authority.
- **Construction Staging:**
  - **Resource Availability:** The ability of the funding and financing options to provide sufficient resources to meet the project's construction timetable.
  - **Debt Financing Impacts:** The project implementation/staging schedule's impact on debt requirements.

- **Timing for Service Implementation:** The project implementation schedule's relationship to the opening of a minimum operating segment and the initiation of full service.

- **Administrative Criteria:**
  - **Revenue Assessment and Collection Mechanisms:** This includes the administrative structures and procedures necessary to levy and collect the funds.
  - **Evasion Potential:** The ease with which the levy can be evaded and the corresponding enforcement activities required.

The feasibility analysis involves an overview of the ability of each funding, financing and implementation option to meet all or part of the revenue needs of the capital project and an evaluation of the political, legal/regulatory, construction staging and administrative/institutional issues. It focuses on developing a funding, financing, and implementation packages which can be used to develop a feasibility analysis.

Financial evaluation is the initial input into the selection of an appropriate package of funding, financing and implementation options. While revenue yield is ultimately the most important factor, legal and regulatory issues must be accorded considerable weight. In some cases, legal barriers may prove to be insurmountable and thus grounds for eliminating an option from further consideration. Construction staging issues will affect the overall financing and resource needs for the project. Administrative barriers should be identified and treated as a negative factor, but generally do not represent an insurmountable obstacle.

10.6.3 Description of Potential Funding Sources and Increases in Existing Taxes

Table 10-20 describes each revenue source in the context of its financial, political, legal and administrative implications. The financial section includes commentary on revenue stability, growth and yield and effect of inflation. The political discussion includes commentary on public perceptions, equity and boundary issues. Legal contains an analysis of legislative impacts, ties to transportation and additional legal implications, and administrative looks at whether collection and assessment mechanisms currently exist at either the state or local level.

Taxes on Motor Vehicles and Fuels

Gallonage Tax on Motor Vehicle Fuel: The state could impose an additional gallonage tax for gas sold in the region, with the proceeds to be dedicated to the project or others. Consideration of this source must be done in the context of the tax rates in neighboring states consideration of state constitutional and statutory limitations or prohibitions and the expectations of highway-related interest groups that may object to motor vehicle taxes being applied to public transportation purposes.

- **Extension of State Retail Sales Tax to Motor Fuels:** Several states apply a sales tax on retail sales of motor fuel in addition to the gallonage tax. Typically, retail sales are defined as sales to a consumer or to any person for any purpose other than resale. In Georgia, for example, the sales tax is statewide. In Virginia,

a sales tax on motor fuels is imposed in the northern Virginia suburbs near Washington, DC and the proceeds are dedicated to public transportation uses.

- **Vehicle License Fees:** Triangle Transit Authority in Raleigh/Durham has two dedicated sources to fund transit. One is a $5.00 per vehicle annual fee (which can be increased as high as $10.00 by action of the TTA Board of Directors and with the concurrence of North Carolina legislature and without voter referendum)

Table 10-20: Summary of Alternative Funding Sources

Source/ Example	*Financial*			*Political*	*Legal*	*Administrative*
	Revenue Growth/ Stability	**Revenue Yield**	**Indexing**	**Public Perception/ Equity**	**Legality/ Tie to Transportation**	**Assessment & Collection**
Local Option Sales Tax *Atlanta, GA* *Buffalo, NY* *Charlotte, NC* *Chicago, IL* *Dallas, TX* *Houston, TX* *Santa Clara, CA* *San Diego, CA* *St. Louis, MO*	▪ Tax revenue is affected by economic conditions. ▪ Provides a reliable revenue flow if State economy remains strong.	▪ There is potential for large revenue yield, especially as population and median income levels grow.	▪ Sales tax revenues have a direct relationship to price levels and inflation.	▪ Tax is regressive; lower income individuals spend greater portion of disposable income. ▪ Tax is unpopular with local retailers who fear a negative impact business. ▪ Requires referendums.	▪ Sales tax has no direct tie to transportation. ▪ Legislation would be required to impose new sales tax rates.	▪ Mechanism in-place to collect the local-generated tax revenue.
Corporate Income Tax *New York, NY*	▪ Revenue growth can be affected by economic conditions and existing industry mix.	▪ Corporate income tax revenue is cyclical and follows state and local business patterns.	▪ Tax has an indirect tie to inflation because corporate income reflects price levels over longer time periods.	▪ Indirect negative impact on investment and corporate growth.	▪ No direct tie to transportation.	▪ Mechanism in-place to collect the local-generated tax revenue.
Employer Payroll Tax *Portland, OR*	▪ Tax paid by employers and is based on gross payroll paid to employees.	▪ Potential for sufficient long-term yield if employment levels continue to grow.	▪ Inflation has indirect effect if payrolls try to keep pace with increasing costs of living.	▪ Tax may face opposition from local business community.	▪ No tie to transportation.	▪ No collection mechanism at either the State or local level.
Personal Income Tax	▪ Salary and wage distributions account for majority of the revenue collected. ▪ Tax normally produces stable revenue flow.	▪ Traditionally, personal income tax has reliable revenue yield.	▪ Inflation has an indirect effect in so far as salaries and wages keep pace with inflation.	▪ Raising the tax is politically unpopular. ▪ State has tried in past to lower the income tax rate. ▪ Opponents claim increasing the tax has a negative economic impact and inhibits income generation and resulting productivity.	▪ Legislation would be required to impose new income tax rates. ▪ No direct tie to transportation.	▪ Mechanism in-place to collect the local-generated tax revenue.

Table 10-20: Summary of Alternative Funding Sources (continued)

Source/ Example	*Financial*			*Political*	*Legal*	*Administrative*
	Revenue Growth/ Stability	**Revenue Yield**	**Indexing**	**Public Perception/ Equity**	**Legality/ Tie to Transportation**	**Assessment & Collection**
Real Estate Property Tax *San Francisco, CA*	▪ Stable revenue source, but fluctuates with real estate trends and property values. ▪ Revenue growth contingent on property trends.	▪ Sufficient revenue yield, but any increase would tend to reduce municipal revenue potential.	▪ Property values do not always follow inflationary trends.	▪ Tax is already heavily burdened, potential for stiff public opposition.	▪ No direct tie to transportation.	▪ Collection mechanism in place.
Personal Property Tax (Auto)*Hillsborough County, FL*	▪ Revenue stability affected by personal property value fluctuations.	▪ Adding intangible property increases yield and progressivity.	▪ Some personal property values will track price levels.	▪ Tax is a major local revenue source and is already heavily burdened	▪ Tax has direct tie to transportation if levied against auto values.	▪ Collection mechanism in place. ▪ Complex tax that is difficult to enforce.
Motor Fuel Gallonage Tax *Cleveland, OH* *Miami, FL* *Washington, DC*	▪ Stable revenue flow as long as economic conditions remain strong. ▪ Limited revenue growth potential as technical advances improve fuel efficiency.	▪ A local option fuel tax tends to reduce statewide tax increase potential.	▪ Must be indexed to inflation because tax is based on a gallonage method. ▪ Potential long run yield not as reliable as a *% of motor fuel tax* or other indexed bases. Larger revenue output if consumers were taxed on the % of fuel purchased.	▪ Reinstating a recently reduced tax may generate negative reactions. ▪ Opportunity to promote the tax as pro-environment (i.e.: represents effort to achieve clean air goals).	▪ Tax has a direct tie to transportation. ▪ Levy is actually a user charge rather than a "traditional" tax.	▪ State collection mechanism in place.
Motor Vehicle Registration Fees *Seattle, WA*	▪ Stable revenue if the per capita growth of automobiles grows with the State's economy.	▪ Potential exists for low revenue yield.	▪ Fee would have to be indexed for inflation.		▪ Registration fees have a direct tie to transportation. ▪ The levy is a user charge not a tax.	▪ State collection mechanism in place.

Table 10-20: Summary of Alternative Funding Sources (continued)

Source/ Example	*Financial*			*Political*	*Legal*	*Administrative*
	Revenue Growth/ Stability	**Revenue Yield**	**Indexing**	**Public Perception/ Equity**	**Legality/ Tie to Transportation**	**Assessment & Collection**
Parking Receipt Tax	▪ Reliable revenue (i.e. will have inflationary growth) if single-occupancy drivers continue to grow. ▪ Growth contingent on businesses remaining in CBD.	▪ Revenue yield is low and costs to enforce and collect may exceed revenue gain.	▪ Tax is not related to current price levels.	▪ Not visible to commuters, tax is embedded in parking price. ▪ Directly affects parking providers who will likely oppose the tax as anti-business.	▪ Relationship to transportation in that tax revenue is generated by commuters.	▪ No collection process in place at either State or local level.
Surface parking surcharge	▪ Reliable revenue if single-occupancy commuters grows. ▪ Growth contingent on businesses remaining in CBD. ▪ If successful, revenues diminish over time.	▪ Yield affected if businesses decide to relocate to outlying communities.	▪ Levied as a flat fee surcharge priced as an absolute dollar amount. ▪ Not indexed to increase with the cost of parking.	▪ Parking rates currently low. ▪ Downtown commercial occupants may relocate if parking rates increased.	▪ Tie to transportation in that tax revenue is generated by commuters.	▪ Implementation will require coordinating with private parking vendors and businesses located in the CBD.
Rental Car Tax*Raleigh-Durham, NC*	▪ Tax levied on amount charged for auto rental. ▪ Small tax base, limited growth potential. ▪ Revenue flow affected more by non-resident traffic.	▪ Low yield may be deterrent.	▪ Tax may be levied on a per day basis or as % of the total rental charge.	▪ Considered more of a burden to non-residents.	▪ Tax has a tie to transportation.	▪ State level collection mechanism in place.
Vehicle Emissions Fee	▪ Normally paid as an annual flat fee but may be levied based on vehicle miles traveled.	▪ Limited revenue growth; revenue yield may be a disincentive.	▪ Levied as a flat fee priced as an absolute dollar amount.	▪ May limit other auto usage revenue, such as gas tax increase. ▪ Palatable to public if tax achieves clean air standards and improves quality of life.	▪ Emissions tax has a direct link to transportation. Will require legislation to change existing emission standards.	▪ State level collection mechanism in place.

Table 10-20: Summary of Alternative Funding Sources (continued)

Source/ Example	*Financial*			*Political*	*Legal*	*Administrative*
	Revenue Growth/ Stability	**Revenue Yield**	**Indexing**	**Public Perception/ Equity**	**Legality/ Tie to Transportation**	**Assessment & Collection**
Vehicle Privilege Fee *Charlotte, NC*	▪ Fee levied on the number of cars per household and is paid as an annual flat fee.	▪ Limited revenue growth; yield may be a disincentive.	▪ Levied as a flat fee priced as an absolute dollar amount.	▪ Fee is a user charge; may be unpopular and viewed as an unnecessary public burden.	▪ Fee has a tie to transportation.	▪ No in place collection mechanism, could be collected with personal property or vehicle registration fee.
Real Estate Transfer Tax *Washington, DC*	▪ Tax that applies to the transfer value of real property deeds. ▪ Unreliable growth, collections infrequent and unpredictable.	▪ Revenue yield may not be sufficient due to infrequency of transfers.	▪ Tax values are contingent on the value of transferred property.	▪ Opposition from real estate partnerships, realtors or other ventures managing extensive property holdings.	▪ No tie to transportation.	▪ State currently levies a *real estate* conveyance tax assessed on the purchase price of conveyed property. Seller pays the tax.
Mortgage Recordation Tax *Albany, NY*	▪ Excise tax on recorded mortgages. ▪ Low revenue growth since tax is one-time levy on mortgage recording.	▪ Low yields where property purchases and mortgage recordings are below the national average and/or declining.	▪ Tax collections are based on the recorded liens. ▪ Inflation has no direct affect	▪ Tax could be unpopular with general public; a real estate property tax is already collected at the local level.	▪ No tie to transportation.	▪ No collection mechanism at either the State or local level.
Fund Balance Transfers *New York, NY* *San Francisco, CA*	▪ Interfund transfers among municipal agencies. ▪ Growth depends on volume of municipal revenues collected.	▪ Low revenue yield and uncertain revenue source. ▪ Many variables affect a municipality's ability to run fund surpluses.	▪ Fees collected from the general public are not indexed to price levels.	▪ Revenue transfers are not visible to the public.	▪ No tie to transportation.	▪ No transfer process in place.
Incremental Tax Financing District	▪ Surcharge on the incremental increase of selected property values. ▪ Revenue growth affected by property value fluctuations.	▪ Low revenue yield.	▪ Property values are not indexed to current price levels.	▪ Surcharge may face opposition from property owners and developers.	▪ If the assessment district is based on transportation benefits, then tie to transportation.	▪ No collection mechanism. ▪ Modifications are needed to govern the set-up of new districts.

Table 10-20: Summary of Alternative Funding Sources (continued)

Source/ Example	*Financial*			*Political*	*Legal*	*Administrative*
	Revenue Growth/ Stability	**Revenue Yield**	**Indexing**	**Public Perception/ Equity**	**Legality/ Tie to Transportation**	**Assessment & Collection**
Benefit Assessment District *Rt. 28 / Dulles, VA*	▪ Surcharge levied on property within defined areas that has benefited from local improvements.	▪ Low revenue yield.	▪ Property values are not indexed to current price levels.	▪ Surcharge may face opposition from property owners and developers.	▪ If the assessment district is based on transportation benefits, then tie to transportation	▪ District must be defined and collection mechanism put into place.
Value Capture *Atlanta, GA* *St. Louis, MO* *Washington, DC*	▪ Public/private partnership where private sector compensates public agency for transit development costs that generate economic value.	▪ Yield dependent upon the economic value of the completed transit facility or project.	▪ Value capture is not indexed to current price levels.	▪ Can be a popular way to enlist private investment.	▪ If facility or project involves transportation, then there is a tie to transportation.	▪ Projects would have to be identified and developed to assess value capture opportunities.

- **Emissions Tax:** An emissions tax may be imposed in several different manners. Currently, the most common forms of this tax are flat fee based, which generally vary by car type, or a gallonage tax on gasoline. The tax may also be based on vehicle miles traveled (VMT), or a factor taking into account both VMT and vehicle fuel efficiency. Tax collection mechanisms are in place for the first two forms of this tax. An emissions fee may be collected along with other vehicle fees such as vehicle registration fee, or at the pump per gallon of gasoline purchased. An emissions tax has the advantage of being directly tied to transportation and, if based on VMT, is expected to have strong revenue potential as well as significant impact on air quality. In comparison, gasoline taxes have generally resulted in improved vehicle fuel efficiency and the introduction of alternative fuels. Because of this, gasoline taxes are expected to have limited revenue growth potential. In addition, while gasoline taxes impact fuel consumption per mile traveled, they have little impact on driving patterns and VMT. An emissions tax based on VMT, on the other hand, is expected to have a more direct impact on driving patterns, resulting in a greater long term impact on air quality. Given that VMT is expected to grow substantially under all reasonably foreseeable circumstances, the revenue potential of such a tax is expected to be strong. In addition, while in general this tax is regressive with greater impact on low income individuals, it is less regressive if based on VMT.

Taxes on Cigarettes and Alcohol

- **Cigarette Tax:** The state excise tax on cigarettes is paid through the purchase of stamps, which must be affixed to each container used for the retail sales of cigarettes. In some states, cities and towns have the right to levy additional taxes upon the sale or use of cigarettes if their charter provides such right.
- **Alcohol Taxes:** State taxes on wine, beer, and distilled spirits are typically deposited in the state's general fund.

Taxes on Corporations

- **Corporate Income Tax:** State corporate income taxes are typically deposited to the state's general fund.
- **Business, Professional and Occupational License (BPOL) Taxes:** Some states (e.g., Virginia) permits localities to impose a local tax on "merchant's capital" or a tax on the inventory of stock on hand, daily rental property, and all other personal property excluding items that are taxed as tangible personal property. Those localities that do not impose a merchant's capital tax are authorized to impose a local license tax on businesses, professions, and occupations operating within their jurisdiction. Businesses, professions, trades and occupations must file each year and are assessed a tax based on gross receipts for the prior year. Self-employed individuals must also file.

Consumer Taxes

- **Local Option Sales Tax:** This funding mechanism has several shortcomings that need to be addressed. First, sales tax receipts are highly cyclical and fluctuate with general economic conditions. Second, sales tax does not apply to

services, the fastest growing sector of the economy. Taxing services should be considered as a means of increasing sales tax receipts. Third, the growth in Internet sales could result in reduced sales tax receipts. Options for collecting tax on Internet sales should be investigated. Furthermore, the appropriateness of a local vs. a statewide sales tax dedicated to transit should be investigated. The advantage of a statewide sales tax is that it is more efficient and less costly to impose; the voting process does not need to be repeated separately by each jurisdiction. Because of this a statewide sales tax dedicated to transit will better support long range planning than local taxes.

- **Utility Taxes:** Many states authorize localities to impose a tax upon the consumers of public utilities. In Virginia, residential consumers may not be taxed more than 20 percent of the first $15 of the monthly bill, although localities with a tax in place in 1972 may continue to impose the tax at that rate, but may not increase it. There is no statutory ceiling on the tax on commercial or industrial customers. The tax on telephone service may be levied on local service only. Utility taxes are applied to an individual's monthly bill from public utilities such as the electric or gas companies.
- **Recordation Taxes:** A tax is levied on the recordation of deeds, mortgages, leases and contracts. It is applied by state, county, and local governments. The New York MTA relies on this among several dedicated sources of funding.
- **Lodging Tax:** This funding source is an example of "exporting" the burden on non-residents. While considered for many transit projects, typically it is not pursued because significant tax is already imposed to support convention center or stadium construction or because of resistance by the hotel industry.
- **Local Restaurant/Food Tax:** This tax is similar to the lodging tax in its impacts, and the challenges in using it for transit-related purposes.

10.6.4 Important Considerations Regarding Local Taxes as the Source of Funding

By studying the impact of tax financing among the peer transit agencies and region, several important legislative considerations regarding local taxes as the source of funding have been identified. The following discussion captures several of these observations and highlights the circumstances that may have increased or decreased the likelihood of enacting tax proposals. The discussion also highlights important lessons learned that have greater application to building public support for new taxing mechanisms.

- All things being equal, a specific tax proposal is strengthened if the tangibility of benefits and projects adds to saleability or attractiveness of the proposal. For example, in Santa Clara County (CA) local officials enhanced voter confidence by using public forums to describe attainable benefits from proposed transit projects that would be funded by new sales tax revenue. Such benefits may include:
  - Improved transportation and land-use planning
  - Enhanced congestion relief planning

  - Increased transit operations (e.g.: greater transit availability)

- Certain sources indicated that in their jurisdictions, citizens seemed more supportive of new taxes that were directly dedicated to mass transit. In this context, voters perceive both direct (improved transit services) and indirect benefits (reduced congestion) from funding mass transit with dedicated tax revenue.
- Public support typically increases when new taxes offer potential for funding other purposes/uses. For example, surplus revenue from new taxes permits municipalities to fund other local needs such as roads and highways; additionally, new tax revenue prevents depleting general revenue pools that support city needs other than mass transit.
- Using tax revenue for general transportation needs increases the breadth of constituency.
- From a state-level perspective, adopting a strategy of "return to source" or sharing a portion of revenue with the municipalities for their own use improves chances of public buy-in for new tax legislation.
- Recruit public "champions", such as a business or community leader, city council member, mayor or state representative, who can effectively express the benefits of new tax legislation, whether it be at the community, city or state level.
- Maximize local business and community support. These parties will often mobilize wider support for ballots and may fund all or part of the legislative campaign.
- Tax proposals that have a finite duration are often more appealing than perpetual tax plans. More importantly, avoid funding proposals that resemble blank check requests.
- Prospects for employing local taxes to supplement transit projects improve when:
  - The tax and transit projects present a coherent transportation policy.
  - An existing revenue source can be utilized (i.e.: no new taxes).
  - The tax is not perceived as an undue public burden.
  - The tax is not perceived as creating an imbalance among towns or groups of people.

10.6.5 Alternative Project Delivery Strategies

The organizational strategy used to design, implement and operate/manage elements of the project may have implications for the financing analysis. For example, the structure of the implementation organization and the financing plan may influence whether:

- The "profit" of the entity is subject to taxation
- The assets of the entity are subject to real estate, personal property and other taxes

Involvement by the private sector in a turnkey approach requires the execution of an agreement between the private entity and the public agency, which sets forth obligations on the part of both parties. Among the elements of such an agreement are the following:

- Specification of assets to be constructed or procured
- Services to be provided, in terms of hours of operation, frequency of service, length of trains, passenger service personnel
- Reliability and availability of equipment
- Operating cost definition, including determination of whether actual or bid price is the basis for the calculation and the identification of reimbursable expenses (e.g., insurance)
- Remedies in the event of default

Three approaches for implementation and operation/management of the project could be considered:

- **Turnkey:** Under this alternative a public agency contracts with a private entity for delivery of a complete and operational project that will be publicly owned. Essentially, the contractor is engendered with full responsibility for project design and construction. Once the project is completed, the contractor "turns the keys" over to the public agency, certifying the project is ready for use. Operations and maintenance of the transit system is then secured either by the public agency, the turnkey contractor, or a designated third party.

  In addition to the basic elements of a turnkey project, the private contractor in a super turnkey project may receive real estate development rights along the project right-of-way, at station areas, and potentially at off-corridor locations in exchange for partial project funding, thereby reducing the need for public involvement.

  Under a build-operate-transfer procurement, the private entity is given authority to design, build, own and operate a facility for a period of time after which title reverts back to the public sector. During the period of ownership and operation, the contractor is able to generate profits from the services provided. Any financing for construction and operations is provided for privately, on a non-recourse basis using projections of future net revenues.

  The potential advantages of participation by the private sector include the transfer of the cost and revenue risks from the public sector to the private sector, the opportunity to take advantage of leasing and other innovative, non-conventional financing approaches and potential shortening of the period of construction. However, using a turnkey procurement also presents some disadvantages. By contracting with one private entity to provide all elements of the project, the public owner greatly reduces its ability to control the design and construction of the facilities. Also coordination with other public agencies is more difficult because of the loss of control of the facilities design and construction.

- **Conventional:** The public entity would be the owner and would manage and contract for the design and construction of the project. Typically, the owner enters into multiple contracts and is responsible for the overall management, coordination and scheduling of the program. The public entity would then test, commission and operate the system. The primary advantage of this approach is that the public entity has complete control over all phases of the project's implementation and operation. However, the public entity will be responsible for most of the risks associated with construction and, as a result, will have to provide significant resources for project oversight. In addition, a conventional procurement process may result in a higher construction costs due to a potentially longer project implementation time frame and limited access to innovative financing mechanisms.
- **Mixed Conventional/Turnkey:** This strategy incorporates elements of both turnkey and conventional procurements. It allows for closely related subsystems in a project to be procured through a total system technology elements contract that is the responsibility of a single supplier/contractor. This approach also provides the public entity with the opportunity to procure facilities/civil elements of the transit system using the conventional contracting process. This allows the owner to retain control of the design and construction of the facilities which are usually of primary interest to an owner due to aesthetic and construction interests.

10.6.6 Alternative Financing Options

This section describes the range of financing options that can be considered in the financial analysis. Financing mechanisms refer to bonds, notes, leases and other forms of debt which are supported by a pledge of future revenues from one, or more funding sources. Public entities utilize financing because it provides the ability to access the capital markets and secure sufficient resources to implement a capital project within an optimal time period. Without debt financing, public entities could only rely upon a pay-as-you-go approach where only annual revenues generated from taxes, user fees and other sources would be used to fund a project. In most cases, the annual revenues generated from these sources are insufficient to cover peak construction requirements.

Financing alternatives that can be evaluated include:

- **Pay-as-You-Go:** As noted above, this is a traditional approach where debt financing is not utilized. The project construction and implementation schedule is driven by the annual availability of federal, state and local resources including grant appropriations and dedicated funding sources. Although this approach eliminates costs associated with debt financing, it generally does not ensure that sufficient resources are available during the peak period of construction. As a result, the project's construction schedule would need to be lengthened so that construction resource needs meet funding availability. Extending the construction schedule delays implementation of the new transit service and significantly adds to the cost of the project.

- **Leasing:** The financial analysis will provide for separating capital costs into leasable and non-leasable items. Leasable items are likely to include rolling stock, other equipment, and maintenance facilities. One option would utilize "certificates of participation" (COPs) which is a means to issue debt secured by the value of the vehicles and/or facilities of the project similar to bonding. The COP investors become the technical owner of the vehicles/facilities and "lease" them back to the transit agency. The lease payments become the service on the debt and at the end of the "lease period" the debt is retired and ownership reverts back to the transit agency.
- **Debt Financing:** Bonds, secured by one, or more of the dedicated funding sources described in the previous section, would be applied in the financial analysis to make up the difference between funding needs and funds provided by grants and leases/certificates of participation. The spreadsheet developed for this analysis will automatically "issue" bonds to the extent required to cover financial need. The spreadsheet can test the financial impact of bonds with varying durations such as 10, 20 and 30 years. The following types of debt financing may be considered in the financial analysis:
- **General Obligation Bonds:** These are securities which are backed by the full faith and credit of the issuing state and/or local governments. General obligation (GO) bonds usually require voter approval. Two types of GO bonds are typically issued. The first is an unlimited tax general obligation bond that is secured by a tax source that is not limited in rate or amount. The second is a limited tax general obligation bond which is only secured by taxes from specific sources such as a sales, motor fuels, or property tax.
- **Revenue Bonds:** These are payable from specific sources of revenues, other than property taxes, and are not backed by the full faith and credit of the issuer. These types of bonds are generally secured by a revenue pledge, by related covenants to ensure the adequacy of the revenue pledge and in some cases by a mortgage on the facilities being financed by the revenue bonds.
- **Notes:** These are generally short term financing mechanisms that are used prior to the implementation of longer term financing. Three types of notes are most common:
  - **Tax and Revenue Anticipation Notes (TRANs):** These notes are issued in anticipation of tax receipts and other revenues.
  - **Grant Anticipation Notes (GANs):** GANs are short-term notes issued in anticipation of grant resources to be provided from some other governmental body or agency such as FTA. GANs are used to initiate construction, or operation of a project prior to the actual receipt of funds.
- **Innovative Financing with FTA:** In addition to the financing techniques mentioned above, the FTA allows the following mechanisms to be used for transit capital projects:
  - **Deferred Local Match:** Federal grantees, with prior FTA approval, may use federal resources to cover up to the first 80 percent of a project's cost. Under

this arrangement, local resources would be committed at the end of construction to cover the grantee's share of the project.

- **Revolving Loan Fund:** Federal grants may be used to support state or local revolving loan funds. These funds would be available to provide direct loans for transit projects, or to acquire equipment and facilities and lease them back to transit operators. Payments to retire the loans or service the leases, including accrued interest, would be used to fund other transit projects. The revolving loan fund could be used in combination with pooled procurements, state/locally issued bonds, joint development, or other financing techniques.
- **Joint Development:** As noted earlier, FTA capital funds may be used for joint development projects as long as they are physically related to and enhance the effectiveness of a transit project.
- **Use of Proceeds from Sale of Assets in Joint Development Projects:** Property that is no longer needed for transit purposes may be sold and the proceeds used to purchase other property for transit supportive development. If the property is leased, the proceeds are considered program income and may be used for any transit purpose. In addition, air rights over transit facilities constructed with federal funds may be sold to developers and the proceeds retained as program income for future use by the transit operator.

- **Transfer of Federal Ownership:** FTA will permit the concentration of federal ownership in a portion of assets acquired with federal funds, leaving the remaining portion of assets unencumbered by any federal ownership. FTA provides an illustrative example of this arrangement whereby a fleet of 100 vehicles is acquired with 80 percent federal and 20 percent local funds. Under this approach, the federal ownership would be concentrated on 80 of these vehicles, while 20 would be locally owned. This separation of federal and local ownership allows grantees to utilize innovative financing techniques for the local share of the investment including COPs, or cross border leases to leverage additional funds.
- **Incidental Non-Transit Use:** FTA funded facilities may also be used for limited non-transit purposes. FTA will determine what is use is incidental on a case-by-case basis.

10.6.7 Joint Development and Benefit Capture

The following describes joint development and benefit capture strategies that could be used to fund transit projects. This includes an overview of FTA's policy governing joint development projects involving federally funded properties and facilities and typical joint development and benefit capture strategies that used by transit agencies.

FTA Joint Development Policy

FTA has actively supported joint development as a strategy for enhancing transit ridership and revenue and for promoting the Livable Communities Initiative. To facilitate transit joint development projects, FTA will make grant funds available for joint development and allow the proceeds from the sale, lease, or other encumbrance of property for transit oriented development to fund capital and operating expenses.

Transit agencies are allowed to sell property as excess for non-transit use, lease the property for incidental, non-interfering use by others while the property is held for a future identified transit use; or they can undertake a transit-oriented development on the property site. In the case of the sale of a property where there would no longer be a continuing transit use, the transit agency would be required to return the pro-rata federal share of the net proceeds from the sale to the U.S. Treasury.

Transit oriented joint development can be undertaken through a sale or lease of federally funded property, or through the direct participation of the transit agency in the development. FTA requires that to qualify as a "transportation project", the transit agency must retain sufficient continuing control over the property to ensure its continuing relationship to transit. The FTA policy noted that continuing control can be accomplished through the use of easements, or contract/lease clauses that would allow the property to revert to the transit agency if access was unreasonably curtailed.

To be eligible for consideration as a transit oriented joint development, FTA requires that the project:

- Has a transit element *and;*
- Enhances urban economic development, or incorporates private investment and;
- Enhances the effectiveness of a transit project, and the non-transit element is physically or functionally related to the project, or;
- Creates new or enhanced coordination between public transit and other forms of transportation, or;
- Includes non-vehicular capital improvements that result in increased transit usage
- In addition to the above, FTA identifies several financial criteria that would be used to evaluate a transit joint development project:
- The project would generate either a one-time payment or revenue stream where the present value equals either the current market value or the appraised value of the property, taking the highest and best transit use into account.
- When more than one joint development project would be undertaken, the combined revenue streams from all the projects may be balanced against the cumulative appraised value of the real estate on a portfolio basis.
- As long as the transit agency retains effective continuing control of the joint development project, FTA will not consider it to be disposition of property. However, if the transit agency does not maintain effective continuing control, the agency may be liable to repay the federal share of the current market value of the property

Typical Joint Development and Benefit Capture Strategies

The following identifies the range of joint development and benefit capture strategies that are typically used by transit agencies. As a subset of joint development, transit districts can utilize the process of value capture to generate additional revenue,

whereby transit agencies capture the benefit of increased real estate values to fund transit projects. Under this scenario, a transit agency acquires real estate and then develops it to either resell or lease to private parties. Ideally, the agency benefits from an increased property value due to the agency's enhancements and/or proximity to transit stops.

- **Leasing/Selling Development Rights:** In most instances the transit agency would sell or lease the rights to develop the air space over a transit station. This would provide a direct economic benefit to the private developer, as well as to the transit agency that would earn a stream of revenues, or a one-time payment. For example, the redevelopment of South Station in Boston included the construction of office and retail space above and adjacent to the station. According to a 1991 FTA Joint Development report, the Massachusetts Bay Transportation Authority (MBTA) spent $60 million to restore the station's shell before turning the project over to the private developer. In exchange for the development of the air rights, the developer agreed to pay 50 percent of the annual operating and maintenance cost of the station. In addition, the developer provided a higher quality building finish and HVAC than the MBTA would normally install in a transit station.
- **Leasing/Selling Land or Facilities:** Selling land or facilities that are publicly owned can provide immediate revenues for the transit agency while also disposing of public assets. Leasing of land-based facilities can occur through either a traditional ground lease or a sale/leaseback mechanism.

  A ground lease is similar to the concept of leasing air rights in that the transit agency would lease the rights to develop a piece of publicly-owned property. This provides an opportunity for joint development at a station as well as a steady stream of income for the agency.

  In a sale-leaseback program, the transit agency would sell a land-based facility to a private owner, who then uses the revenues from the lease payment to cover the debt assumed for the purchase. The transit agency receives cash for the sale which can be used for other purposes, while maintaining the use of the property. The private party receives the benefit of depreciation allowances for the property without incurring additional expenses. In some cases the value of the real property could appreciate over time, providing an additional benefit to the private developer.

  An example of a project of this type is the development above WMATA's Ballston Station in Arlington, Virginia. This is a 28 story, 711,500 square foot mixed use development, which was completed in the early 1990's that includes a hotel, condominiums, retail, parking, a bus terminal facility and direct access to both Metrorail and Metrobus services. The joint development included the lease of over 72,000 square feet of property owned by WMATA to the developer and the sale of 15,000 square feet of WMATA owned property to the developer.

- **Special Benefit Assessment Districts:** To capture benefits associated with enhanced real estate development partially attributable to improvements in transportation corridors, several jurisdictions have created special assessment

districts. A special assessment is charged upon commercial real estate deriving a special benefit from a nearby capital improvement that is used to cover debt service for the improvement. The special assessment charge typically cannot be more than the cost of the improvement. Frequently, the assessment is apportioned on the basis of the front footage of the land, although other valuations such as the land area, or the value of the property benefited are also used. Benefit assessment districts have been used to finance transit improvements in Denver, Seattle, Minneapolis and Miami as well as highway improvements in Northern Virginia. The assessments rate can be levied uniformly for all commercial property owners within the benefit assessment district, or on a graduated rate based on distance from a rail station. The graduated rate, which was used in Denver for the 16th Street Benefit Assessment District, recognizes that benefits of a transit project are related to proximity to the project. Accordingly, the assessment rate is highest for the properties nearest to the transit station and lowest for those at the boundaries of the district.

- **Cost Sharing:** Developers and property owners wishing to have transit stations integrated with their commercial facilities are sometimes willing to share operating expenses and/or contribute to capital construction costs. Cost sharing can substantially reduce the costs to the public of constructing selected elements of transit facilities. Typical cost sharing arrangements include private developer funding of elements of a transit station, or the donation of land for a station. Cost sharing arrangements have widely been used by New York City Transit and Southeastern Pennsylvania Transportation Authority (Philadelphia) to improve existing stations.

- **Concession Leases:** Transit agencies lease space to retail companies and independent vendors. At a minimum this involves the lease of excess space to newspaper stands and convenience centers. A more aggressive approach includes the cooperative design and development, or renovation or rehabilitation of station space. This more expansive strategy has been applied by SEPTA at commuter rail stations.

- **Density Bonuses:** Similar to the joint development concept, a municipality may provide incentives to developers in exchange for construction of station facilities or amenities. By granting a “density bonus” to a developer, the municipality allows a developer to build at a higher density (usually measured by floor-to-area ratio, or FAR), thereby enabling the developer to gain greater profit from the property. Increased density at or near station areas also has positive effects on transit ridership.

- **Tax Increment Financing:** Tax Increment Districts obtain funds from increases in *ad valorum* tax revenues that arise from a new infrastructure project. Tax increment districts differ from benefit assessment districts in that they use the diversion of regular tax revenues rather than additional fees. Tax increment financing is based on regularly recurring taxes, participation of all district taxpayers, assessments based on property values (although sales tax revenues have also been used as a basis for assessment). The incremental increase in tax revenues over a designated base year is diverted into a special fund, which can

be used for debt service, or for reimbursing municipalities or private financial institutions.

- **Connector Fees:** Connector fees are charges to developers or owners of property that derive a benefit from being connected to an adjacent transportation facility. These are three types of fees: lump sum payments to cover capital costs of the connection to the station; an annual contribution to the operating capital costs of the facility; or "in lieu" dedication of property for station areas or easements. By having direct connections to commercial development, the transit system receives the benefit of additional riders.

10.7 Financial Analysis Summary

As noted in the introduction, MDT is currently facing a very difficult environment for transit financial planning, with rising costs, shrinking revenues, and uncertainty over the direction of federal and state transportation policy. The FY2010-2019 TDP Major Update reflects these difficulties and attempts to chart a reasonable path forward that is fiscally balanced while still meeting the transit needs of the citizens and businesses of Miami-Dade County.

The ten-year operating budget as detailed in the TDP is balanced, meaning that all projected operating expenses are covered by the forecasted revenues from various local and non-local sources, and there is no funding gap. This balanced budget is achieved by a combination of cost efficiencies and service restructuring in Metrobus; an avoidance of any major service expansion except for the MIC-Earlington Heights Metrorail connector service; and aggressive use of available local funding sources (LOGT and general funds) during the second five years of the TDP.

The ten-year capital budget as presented in the TDP is also balanced, meaning that there is no baseline capital funding gap and that all projected capital expenditures will be funded with either PTP surtax debt proceeds or on a pay-as-you-go basis with funds available from a variety of sources. This balanced budget is achieved by a combination of substantial borrowing against the PTP surtax (ultimately requiring the inclusion of additional LOGT and general funds in MDT's budget to guarantee debt coverage effective 2014), as well as reductions and even eliminations of planned capital projects that had been included in previous TDPs.

MDT's total unfunded needs over the next ten years – including bus service improvements, capital investment in priority travel corridors, and CIP projects – totals about $1 billion in year-of-expenditure dollars. There are a number of conventional and innovative funding sources that could be made available to the County to fund these projects, of which the most likely appear to be an additional dedicated sales tax, an increase in the local option gas tax, and additional County general funds. There are both advantages and drawbacks to each funding option which will need to be weighed by the County before deciding how to proceed.