

**Los Angeles County
Metropolitan Transportation Authority**

**January, 1997 Recovery Plan
Financial Capacity Analysis**

Prepared For:
**Federal Transit Administration
United States Department of Transportation**

Prepared By:
**Jeffrey A. Parker & Associates, Inc.
In Association with John Milligan, CPA**

April 9, 1997

Vic

Jeffrey A. Parker & Associates, Inc.

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April 17, 1997

Ms. Nidya Picayo
U.S. Department of Transportation
Federal Transit Administration TPM-41
Room 9301
400 Seventh Street, SW
Washington, DC 20590

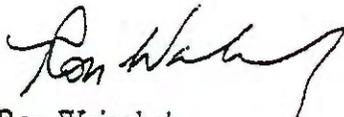
RE: FINANCIAL CAPACITY ANALYSIS OF LACMTA'S JANUARY 1997
RECOVERY PLAN (Task Order No. 5, Contract No. DTFT60-95-C-41016)

Dear Ms. Picayo:

Enclosed please find our Financial Capacity Analysis of the Los Angeles County Metropolitan Transportation Authority's January, 1997 Recovery Plan. This report consists of a presentation-oriented Findings section supported by several technical appendices and was prepared in association with John Milligan, CPA.

Should you have any questions please feel free to call either Jeffrey Parker at (508) 645-8095 or me at (954) 845-9410.

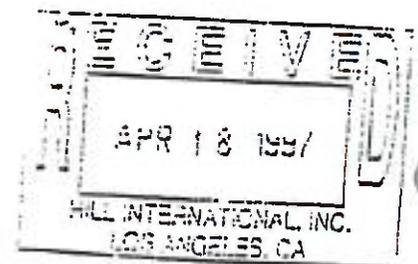
Sincerely,



Ron Wainshal
Director

Enclosure

cc: John Milligan
Jeffrey A. Parker



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SUMMARY OF KEY FINDINGS

1. LACMTA's proposed Recovery Plan depends upon:
 - Bus operations cost savings contrary to previous trends,
 - No further rail capital cost over-runs,
 - No sales tax or fare revenue shortfalls, and
 - Growth in sales taxes higher than previous experience.

Without a cash reserve, these assumptions constitute an excessive level of risk that another Recovery Plan will be required in six months to a year.

2. The Recovery Plan is already at risk because of a potential \$17 million operating deficit over-run this year.
 - Unless the current deficit projection is closed, the credibility of anticipated reductions in Prop C Discretionary funding for bus operations will erode and both Eastside and Pasadena will likely face further delays.
3. Without demonstrated progress in controlling capital and operating costs, it is unlikely that the MOS-3 cost and schedule revisions proposed, the Pasadena Blue Line program and the Consent Decree requirements will all be met.

IS THE JANUARY, 1997 LACMTA RECOVERY PLAN FINANCIALLY VIABLE? ONLY IF HIGH RISK ASSUMPTIONS ARE ACCEPTED:

1. \$544 million in bus operating savings are used to fund rail operations and Prop C rail debt in near term, and Consent Decree services in out-years.
 - Historically, LACMTA has failed to meet operating budget forecasts and generated an \$85 million “structural” operating deficit, \$65 million of which occurred last year.
 - Any negative variance in operating revenue or cost disrupts the Recovery Plan because rail construction is sacrificed to maintain operations.
 - At mid-year an \$11 - 12 million operating deficit was forecast for the current fiscal year. The deficit overrun has now been reported to the PMO to have grown to \$17 million. *Unless this gap is closed completely, the Recovery Plan assumptions are already in jeopardy.*
2. No Prop C Discretionary reserves for capital or operations are programmed until 2004. The lack of any reserves is acute in the Recovery Plan’s first five years when rapid increases in sales tax revenues are anticipated in addition to major reductions in operating costs.

Recovery Plan Viability Risks, continued:

3. Sales tax revenue forecasts are projected to grow at 6.4% compounded annually, compared to historical high range of 3.7%.
4. Cost figures for Eastside and Mid-City are still subject to adjustment as designs and environmental work progress.
5. \$142 million of the City of LA's \$200 million for MOS-3 are linked to milestones on a future rail extension to the San Fernando Valley. LACMTA is advancing these funds at a cost of \$27 million.
6. \$171 million of Grant Anticipation Notes are planned to advance 49 U.S.C. Section 5309 ("Section 5309") appropriations for North Hollywood and Eastside. Counter to FFGA provisions, this structure would automatically delay MOS-3 construction and also impact Pasadena Blue Line if there are shortfalls in Congressional appropriations.
7. In addition to operating deficit overruns, the Recovery Plan has gaps due to loss of anticipated MOS-3 Benefit Assessment District funds.
8. Contingencies for outstanding claims and lawsuits may be significant and not fully covered in LACMTA's plans.

DOES LACMTA HAVE FFGA CAPITAL RESERVES?

LACMTA pledged its debt capacity as evidence of a cash reserve to pay for MOS-3 overruns and assure availability of its local share.

- LACMTA has enormous *theoretical* debt capacity. *Theoretical* debt capacity involves curtailing operations to free revenues for debt service. The FFGA obligates LACMTA “to operate and maintain the existing system” limiting *theoretical* debt capacity. These limitations are magnified by Consent Decree requirements.
- *Practical* debt capacity is the leveraging potential available after operating needs are met.
- For practical purposes, the Recovery Plan has no capital reserves.
- In reality, LACMTA capital program allocations are used as the reserve for operating deficits.

ARE SALES TAX REVENUE ASSUMPTIONS REALISTIC?

Sales tax revenues normally fluctuate with economic conditions and there are no provisions for negative variances in the Recovery Plan.

- *Risks are compounded in first five years when the highest sales tax growth expectations are coupled with the most aggressive operating cost reductions.*
- Sales tax revenues are projected to grow at a 6.4% annual compound rate compared to an historically high compound rate of 3.7% and a mid-range historic growth level of about 2.0%. The impact on LACMTA forecasts is significant:

	Growth Rate	Prop A&C Revenues ('97-2010, billions)
1997 Long Range Plan	6.4%	\$18.1
Historic LACMTA High Range	3.7%	\$14.8
Historic LACMTA Mid Range	2.0%	\$13.0

HAS FEDERAL FUNDING SLOWED MOS-3 PROGRESS?

Federal Appropriations have led construction progress, while local funding commitments have not been met and are pushed farther out into the future.

MOS-3 FFGA Fiscal Effort

Through LACMTA FY 1996-97
(millions)

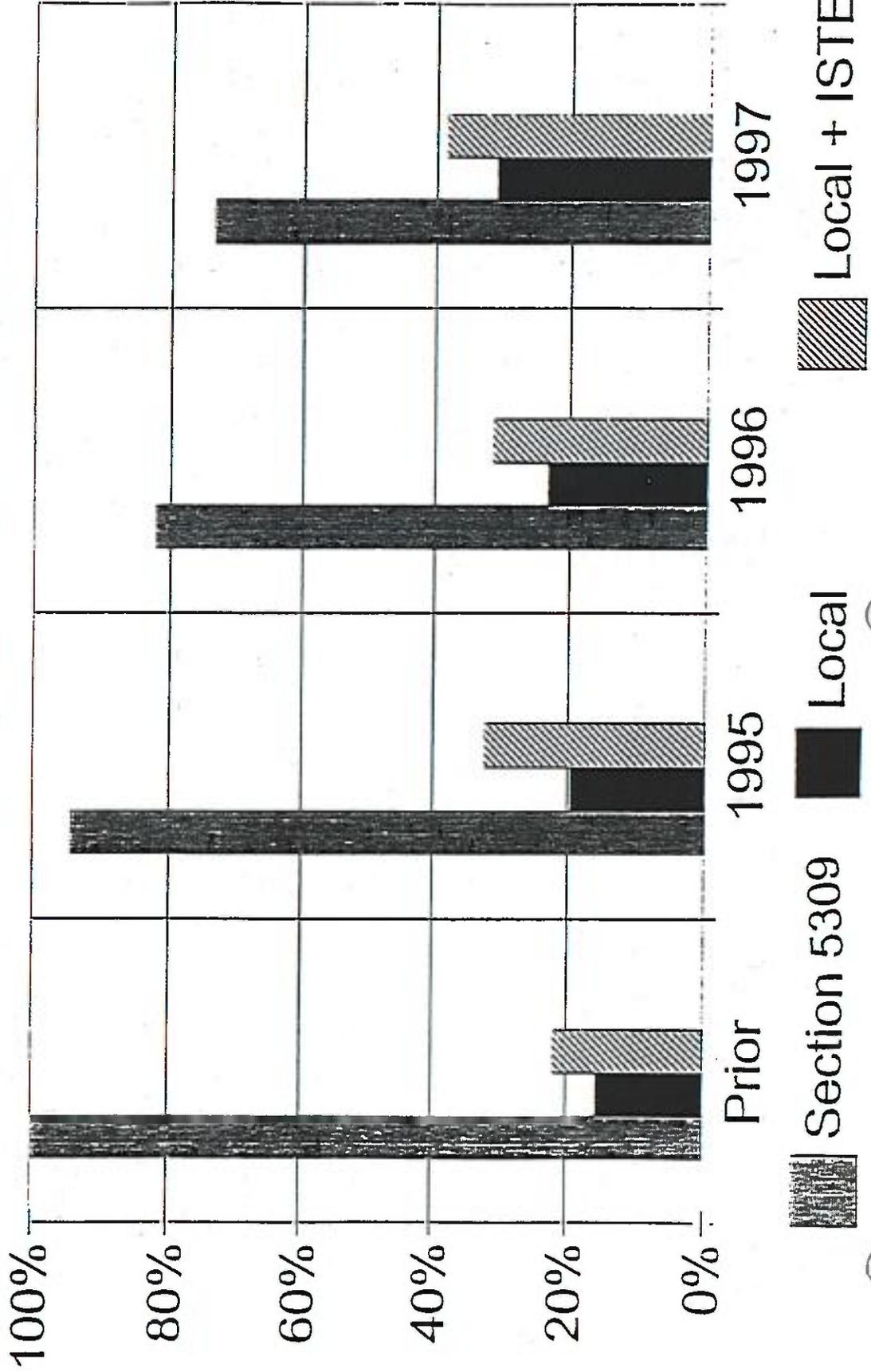
	FFGA	Appropriated/ Delivered*	Shortfall	% of FFGA Commitment
Section 5309	\$695	\$510	\$185	73%
Local + ISTEA	\$689	\$265	\$424	38%

* \$115 million in ISTEA grant applications are pending that, when approved, would reduce the LACMTA shortfall to \$309 million and raise its performance against the FFGA to 55%.

LACMTA Section 5309 vs. Local Funds

Actual as a % of MOS-3 FFGA Commitment

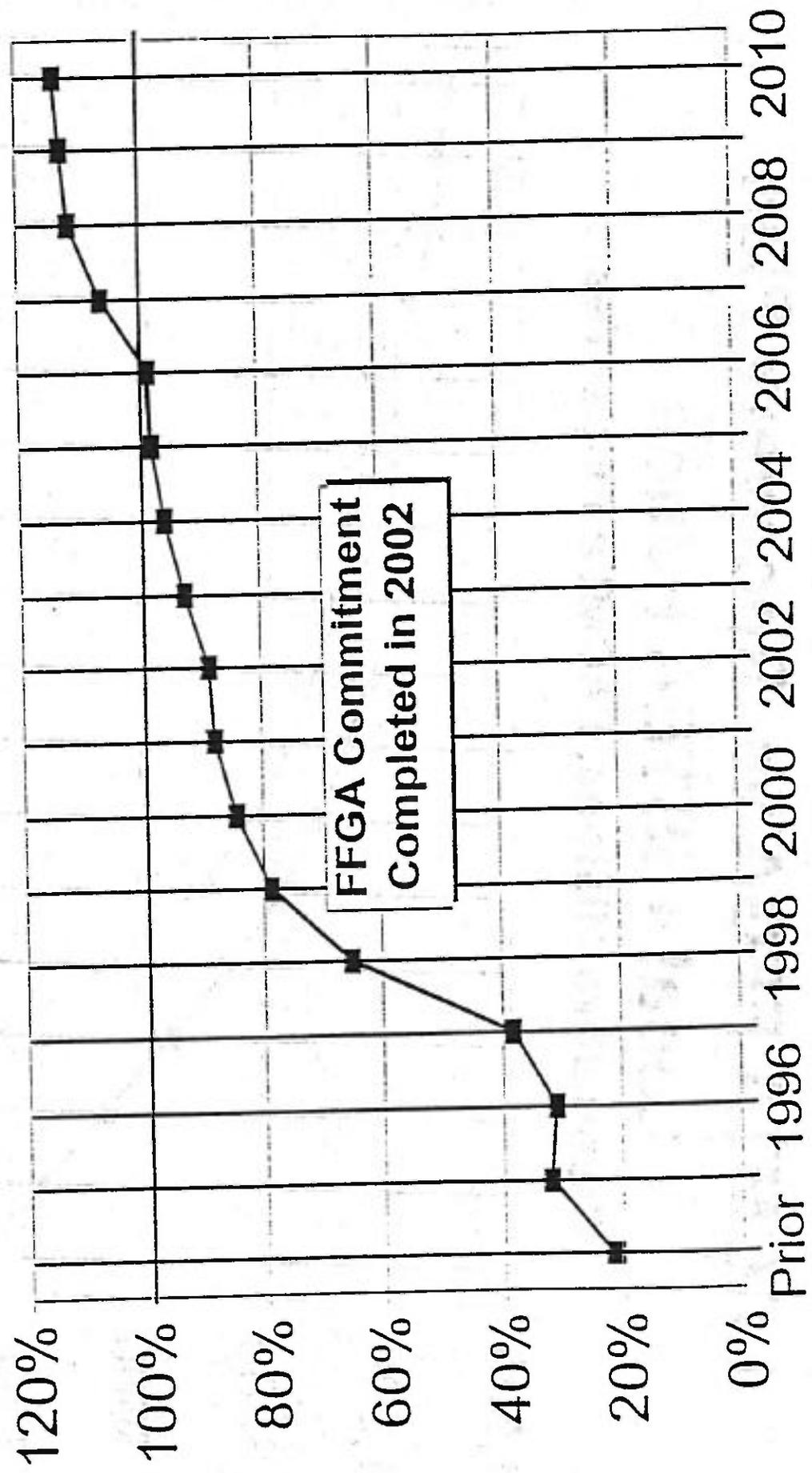
Cumulative, LACMTA Fiscal Years



LACMTA Recovery Plan % of FFGA

Local + ISTEA Funds

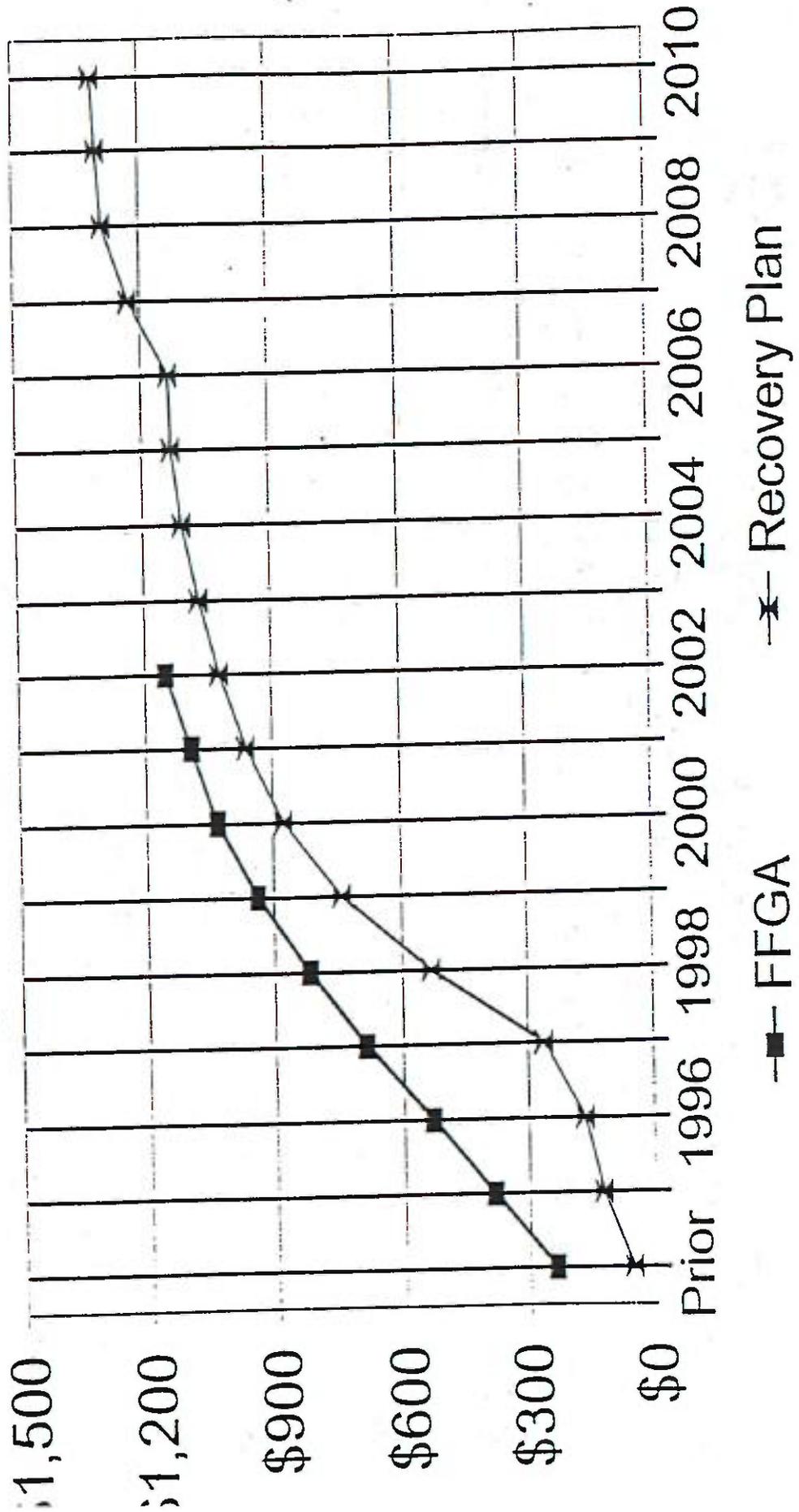
Cumulative Percentage, LACMTA Fiscal Years



LACMTA FFGA vs. Recovery Plan

Local + ISTEA Funds

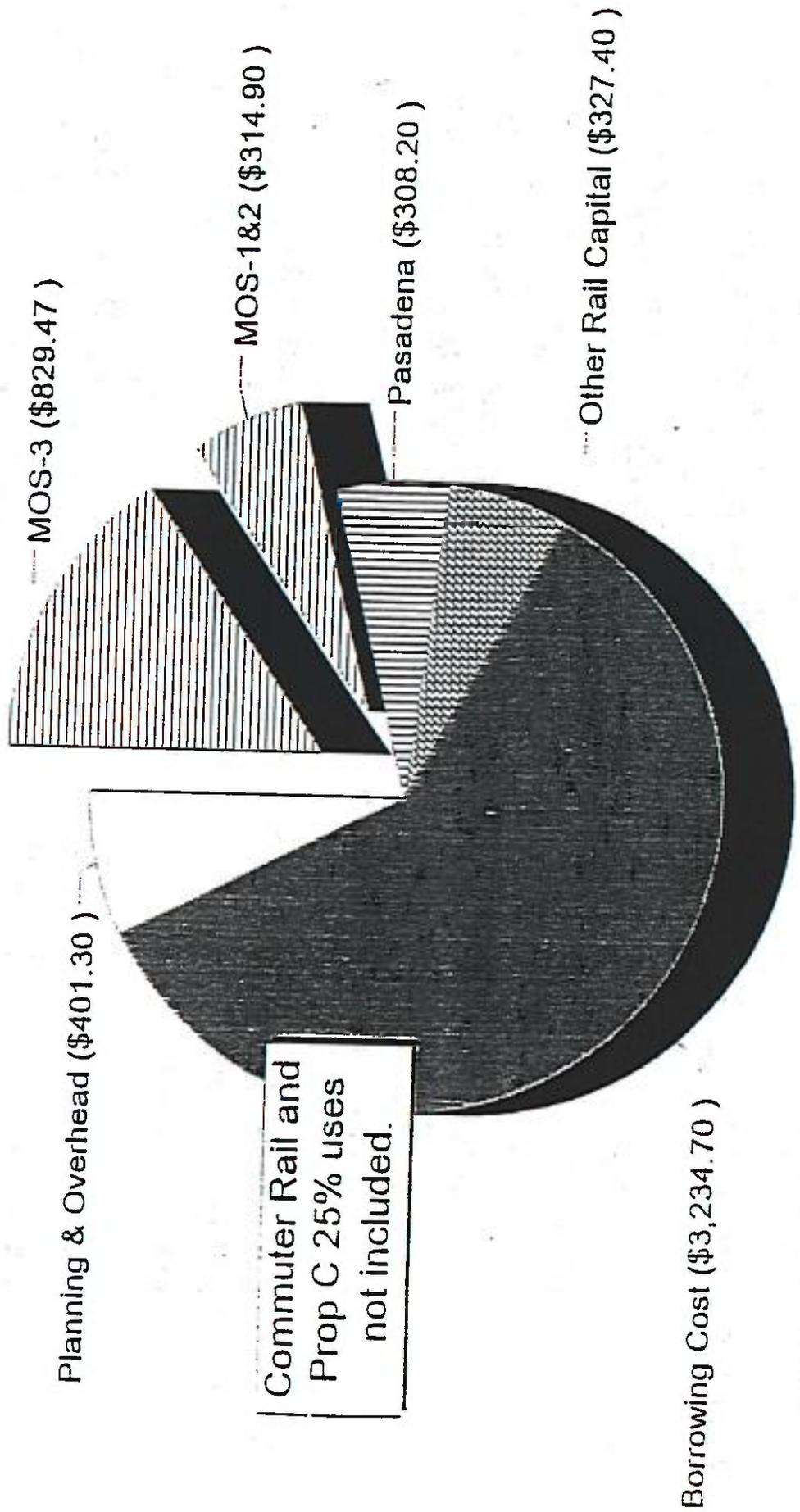
Cumulative Millions, LACMTA Fiscal Years



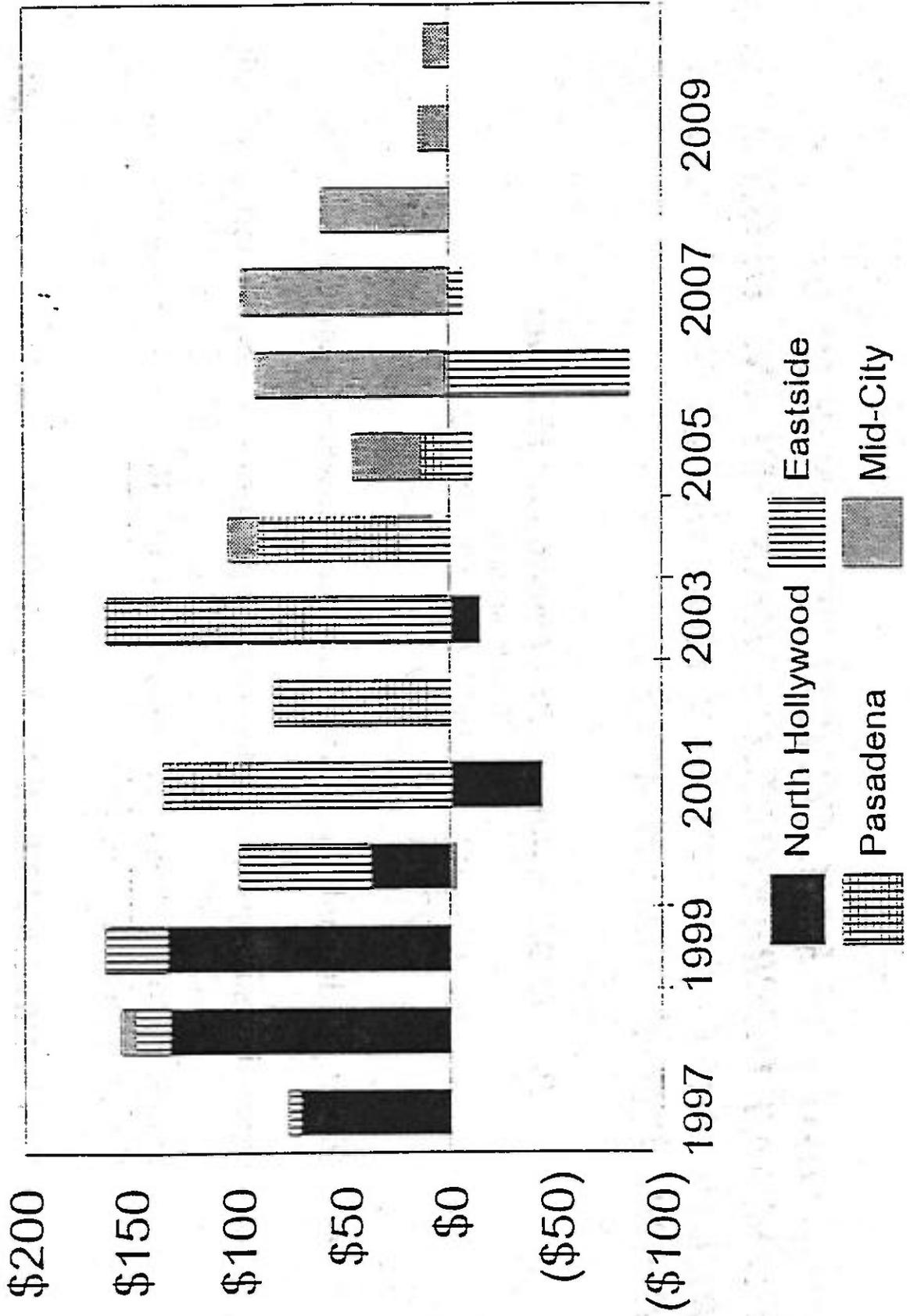
LACMTA'S LOCAL RAIL CAPITAL IS CONSTRAINED --

- Debt service absorbs 60% of local rail capital funds eligible for MOS-3 (FY 97-10).
- LACMTA system-wide expenses and transit planning take about \$400 million "off the top" of rail capital allocations, *in addition to the "soft costs" in individual project budgets.*
- Rail capital funds are diverted to operations if cost or revenue projections are not realized. The impact is magnified when Prop C Discretionary rail bond sales must be deferred.
- MOS-3 lines and Pasadena Blue Line are built sequentially with local cash flows that leverage federal funding. To create a capital reserve *within the rail construction program without negatively impacting operations*, costs and/or the amount of rail construction may have to be reduced.

Estimated Local Rail Funds 1997-2010 Uses - 1997 LRP



Local Funding for Rail Construction



MEETING THE RAIL CONSTRUCTION SCHEDULE & CONSENT DECREE OBLIGATIONS DEPEND UPON REDUCING PROP C DISCRETIONARY FUNDS FOR BUS OPERATIONS IMMEDIATELY:

Prop C Discretionary Bus Operations Funding

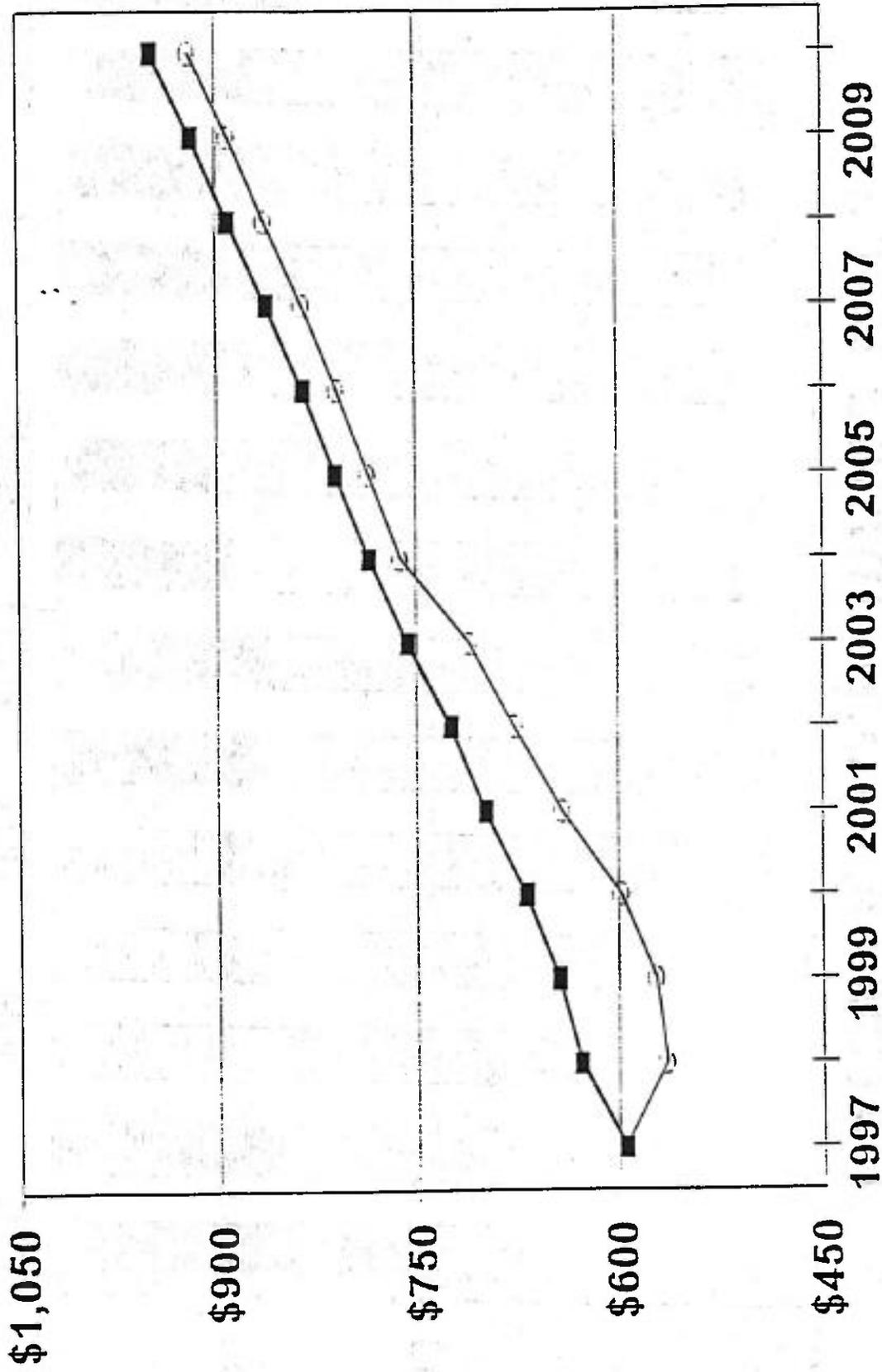
(FY 97 LRP, millions)

<u>FY 1996-97</u>	<u>FY 1997-98</u>	<u>FY 1998-99</u>
\$77	\$30	\$8

- 1997 LRP depends upon \$544 million in lower bus operating costs.
- Operating savings are shifted to rail operations and construction initially.
- Out-year Prop C bus operations funds are allocated to expansion and Consent Decree services.

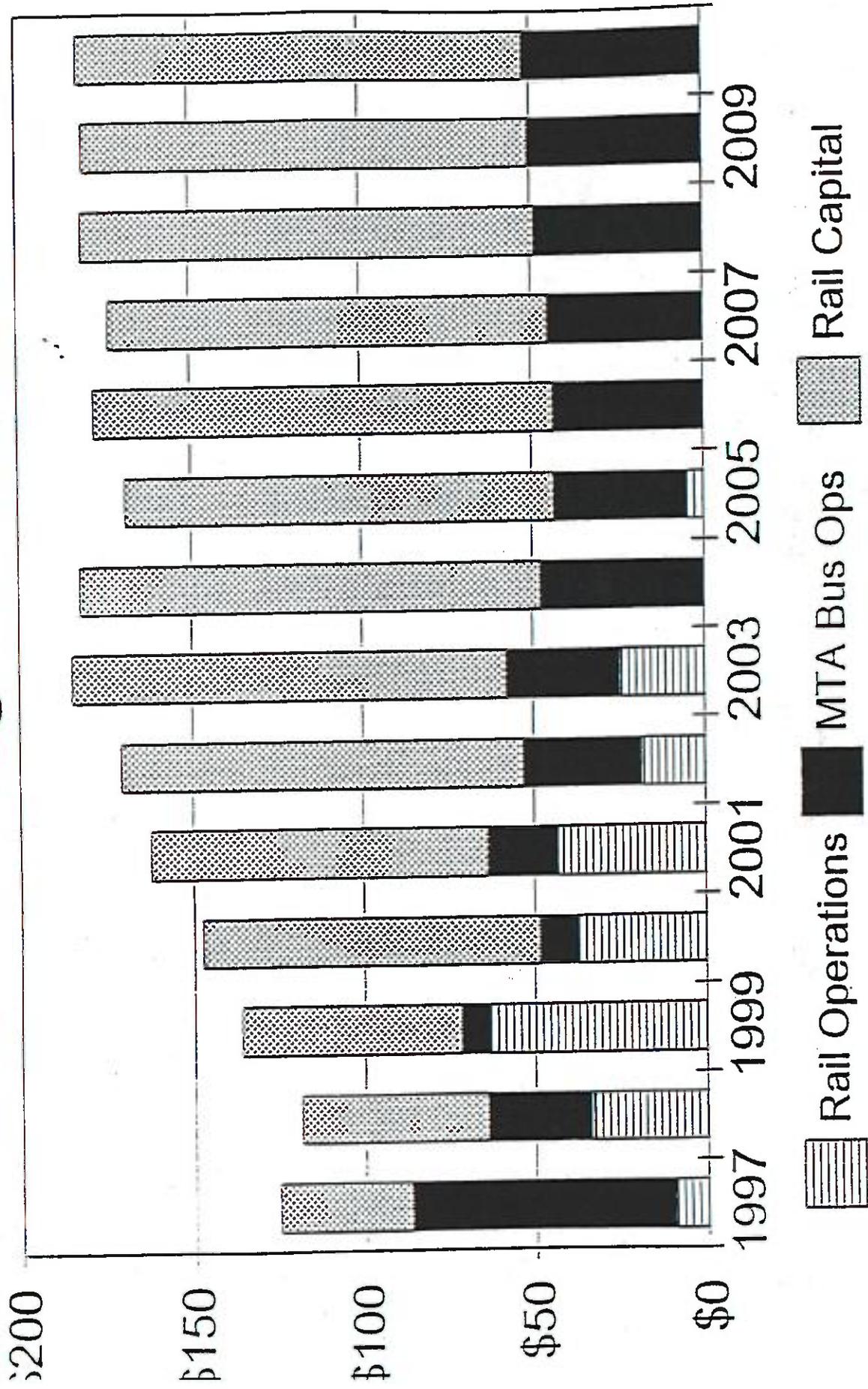
THE CURRENT-YEAR PROJECTED \$17 MILLION OPERATING DEFICIT OVER-RUN JEOPARDIZES ALL OF THESE ASSUMPTIONS.

1997 LRP Bus Operations Forecast

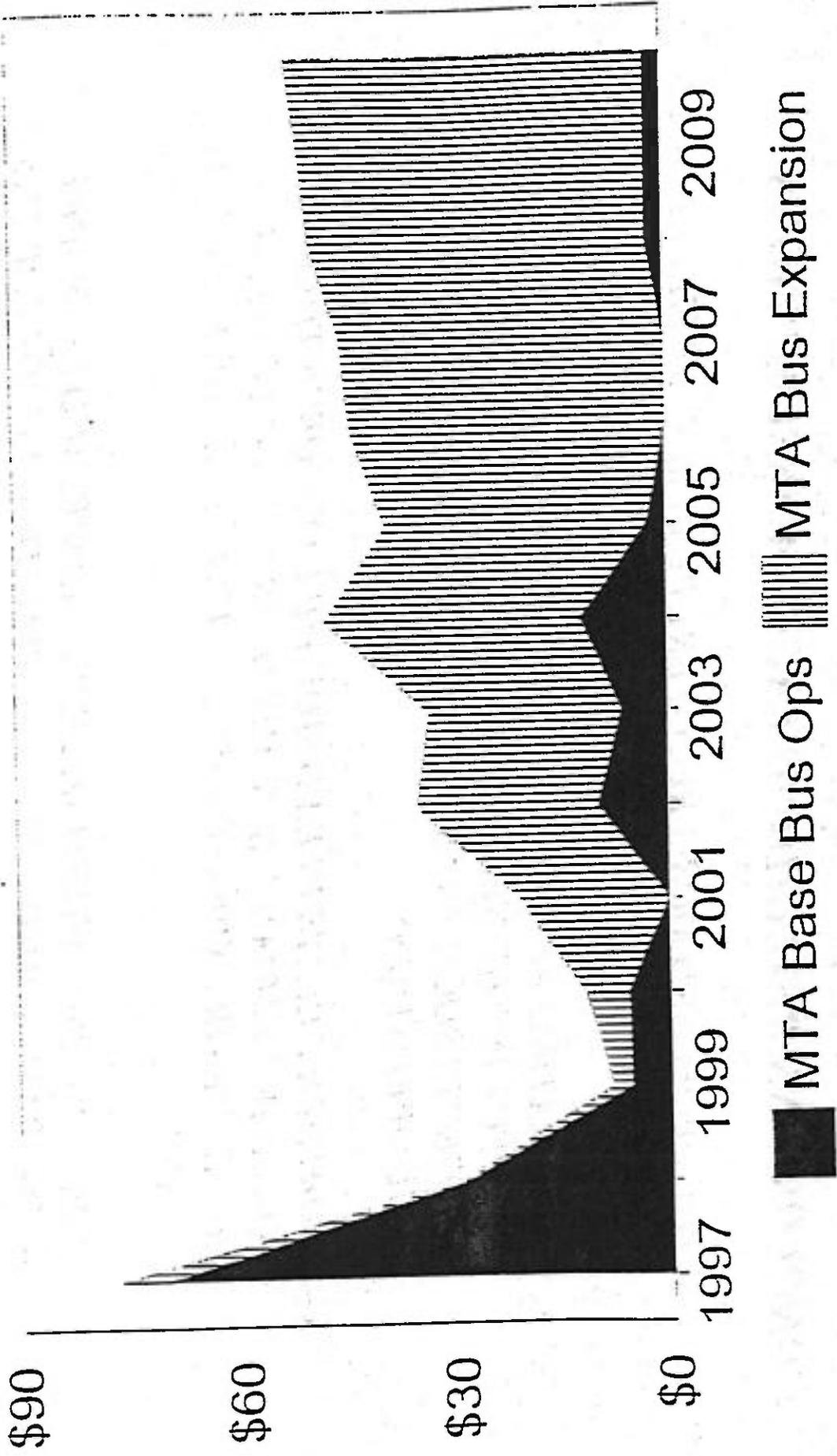


—○— MTA 97LRP Bus Operations Cost —■— Unconstrained Bus Ops Cost Base

Prop C Discretionary LACMTA Programmed Uses



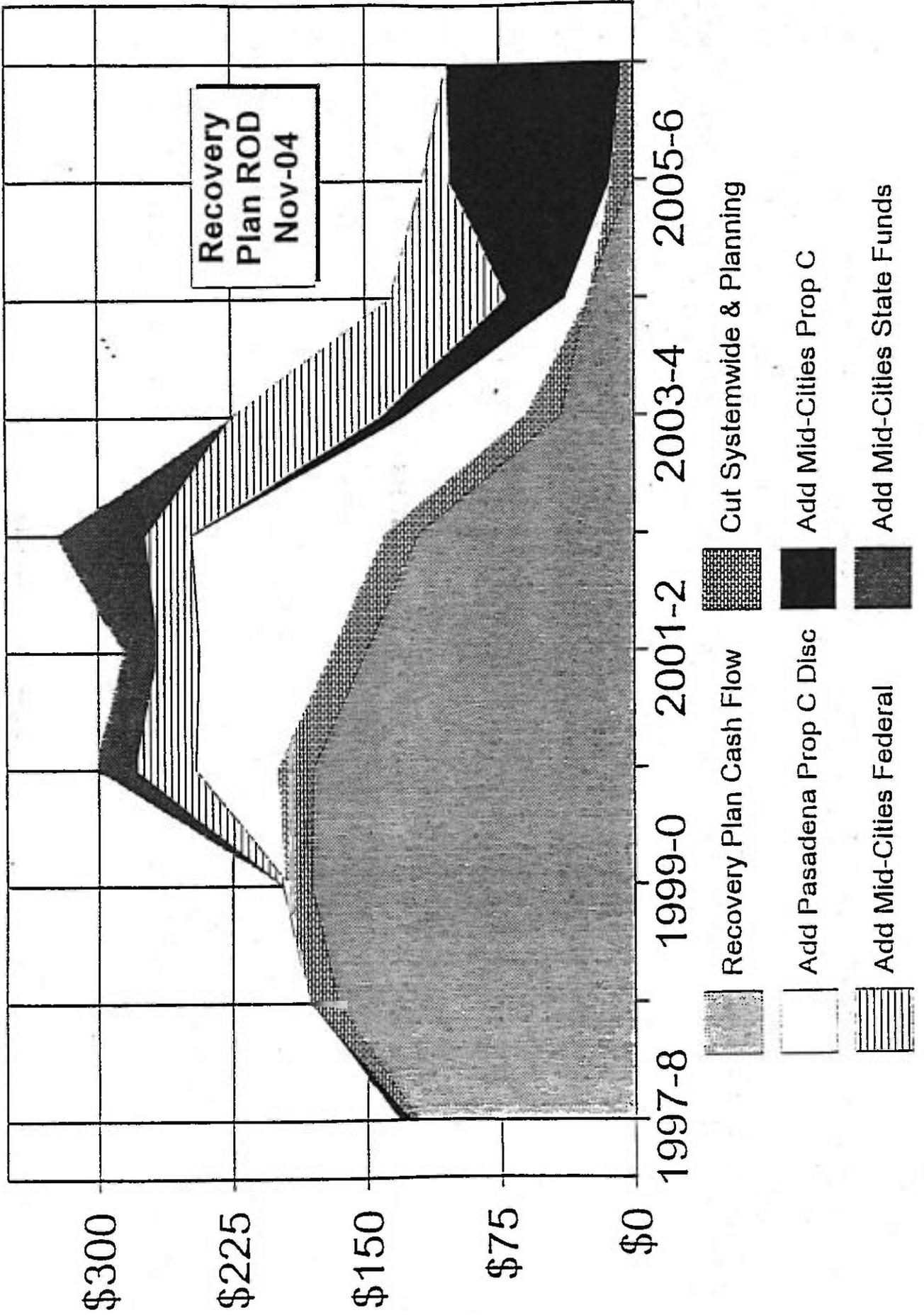
Prop C Discretionary Levels In LACMTA Bus Operations



CONCLUSIONS REGARDING LACMTA ASSUMPTIONS:

- **THE PROPOSED MOS-3 RECOVERY PLAN IS VERY LIKELY OVER-PROGRAMMED.**
- **GENERATING RESERVES OR ACCELERATING ANY ONE PROJECT IN THE NEAR TERM WOULD ADVERSELY IMPACT PROJECTS SUCH AS MOS-3, THE PASADENA LINE OR BUS AND RAIL OPERATIONS.**
- **FURTHER DELAYS IN EASTSIDE WILL OCCUR IF THERE ARE NEGATIVE VARIANCES IN ANY OPERATING OR CAPITAL REVENUE OR EXPENSE ASSUMPTION OVER THE NEXT TWO YEARS.**
- **ONLY CUTS IN SYSTEM-WIDE RAIL COSTS AND PLANNING GENERATE ADDITIONAL CONSTRUCTION FUNDS FOR THE NEXT TWO YEARS.**
- **MID-CITY'S PROP C DISCRETIONARY FUNDING COMES TOO LATE TO HELP EASTSIDE IF MID-CITY IS DEFERRED.**

Options for Eastside Recovery



Appendix 1

Supporting Calculations

LACMTA MOS-3 Plan vs. Actual Cash Flows

(millions)

LACMTA Fiscal Year	Prior &					TOTAL
	1993-94	1994-5	1995-6	1996-7	1996-7	
FFGA Sources of Funds						
Section 3 - FFGA	\$183.0	\$184.3	\$158.9	\$158.9	\$695.0	
Section 3 - Appropriations -1	\$183.0	\$163.6	\$84.0	\$69.5	\$510.2	
Section 3 - Recovery Plan -1						
Section 3 Cumulative	\$183.0	\$366.7	\$440.7	\$610.2		
Cumulative % Delivery	100.0%	94.6%	82.2%	73.4%		
Other ISTEA - FFGA	\$41.3	\$20.0	\$20.0	\$20.0	\$101.3	
Other ISTEA - Obligation -1&2	\$21.2	\$40.0	\$0.0	\$20.0	\$81.2	
Other ISTEA - Recov Plan -1						
Other ISTEA Cumulative	\$21.2	\$61.2	\$61.2	\$81.2		
Cumulative % Delivery	51.4%	89.9%	76.3%	80.2%		
State - FFGA	\$0.0	\$70.2	\$70.2	\$70.2	\$210.7	
State - Recovery Plan -2	\$0.0	\$30.5	\$8.1	\$98.6	\$137.3	
State Cumulative	\$0.0	\$30.5	\$38.7	\$137.3		
Cumulative % Delivery		43.4%	27.5%	65.1%		
Local - FFGA	\$189.1	\$125.0	\$129.2	\$134.0	\$587.3	
Local - Recovery Plan -2	\$31.3	\$32.0	\$43.1	\$77.0	\$183.4	
Actual Cumulative	\$31.3	\$63.3	\$106.4	\$183.4		
Cumulative % Delivery	15.7%	19.5%	23.5%	31.2%		

Sources

- 1- LACMTA 1/23/97 Spreadsheet MRSEG3.BJB where "appropriation" for Section 3 means federal fiscal year of Congressional Appropriation & "Obligation" for ISTEA means year of LACMTA obligation; FFGA figures assumed to be available Oct 1 & are placed in the corresponding LACMTA fiscal year. 1997 LRP Cash Flows, Pages 64-65, 1/28/97
 - 2- 1997 LRP Cash Flows, Pages 148 - 158, 1/28/97
- Construction Division Recovery Plan Cash Flow, 1/28/97 Spreadsheet CFLOW2QTER97

LACMTA Sales Tax Available for Bus and Rail

(millions)

Note: 1997 Long Range Plan Cash Flows, does not include computer rail or highway funds.

	1986	1987	1988	1989	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	TOTAL
G Funds Available																
Prop C 40% Discretionary	\$163.6	\$175.7	\$186.6	\$199.7	\$214.0	\$227.8	\$243.0	\$256.9	\$272.0	\$288.9	\$307.0	\$326.0	\$346.4	\$366.1	\$366.1	\$3,673.8
Carry-In Prop C 40%	\$21.7															\$21.7
Prop C 5% - Rail & Bus Security	\$20.4	\$22.0	\$23.3	\$25.0	\$26.7	\$28.6	\$30.4	\$32.1	\$34.0	\$36.1	\$38.4	\$40.8	\$43.3	\$45.8	\$45.8	\$446.6
Total Prop C Available	\$205.6	\$197.7	\$209.9	\$224.7	\$240.7	\$256.3	\$273.4	\$289.0	\$306.0	\$325.0	\$345.4	\$366.8	\$389.7	\$411.9	\$411.9	\$4,042.1
Rate of Growth		7.5%	6.2%	7.1%	7.1%	6.5%	6.7%	5.7%	5.9%	6.2%	6.3%	6.2%	6.2%	5.7%	5.7%	
A Funds Available																
Prop A 35% Rail Development	\$127.3	\$125.9	\$146.4	\$127.9	\$144.6	\$127.2	\$145.0	\$127.5	\$157.5	\$152.7	\$167.3	\$178.6	\$177.2	\$178.8	\$178.8	\$2,083.8
Rail Capital	\$32.7	\$21.3	\$10.0	\$40.0	\$36.0	\$65.0	\$60.0	\$89.3	\$72.0	\$91.1	\$81.7	\$86.5	\$116.0	\$130.0	\$130.0	\$850.8
Rail Operations	\$22.4															\$22.4
Carry-In	\$182.4	\$147.2	\$156.4	\$167.9	\$180.5	\$192.2	\$205.0	\$216.8	\$229.5	\$243.8	\$259.0	\$275.1	\$292.2	\$308.8	\$308.8	\$3,058.8
Prop A 35%, Subtotal		-8.0%	6.2%	7.4%	7.5%	6.5%	6.7%	5.8%	5.9%	6.2%	6.2%	6.2%	6.2%	5.7%	5.7%	
Rate of Growth																
Prop A 40% Discretionary	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bus Capital																
Bus Operations	\$115.8	\$125.0	\$132.9	\$144.0	\$154.8	\$164.8	\$175.8	\$185.9	\$196.8	\$209.1	\$222.1	\$235.9	\$250.7	\$264.9	\$264.9	\$2,578.5
MTA Operations	\$33.6	\$34.7	\$36.8	\$38.3	\$41.2	\$43.8	\$46.7	\$49.4	\$52.3	\$55.6	\$59.0	\$62.7	\$66.6	\$70.4	\$70.4	\$891.2
Municipal Operations & Other	\$7.9	\$8.4	\$8.9	\$9.6	\$10.3	\$11.0	\$11.7	\$12.4	\$13.1	\$13.9	\$14.8	\$15.7	\$16.7	\$17.6	\$17.6	\$172.0
Incentive/Reserve	\$157.3	\$168.1	\$178.7	\$191.9	\$206.3	\$219.8	\$234.2	\$247.7	\$262.2	\$278.6	\$295.9	\$314.3	\$334.0	\$352.8	\$352.8	\$3,441.7
Prop A 40%, Subtotal		6.9%	6.3%	7.4%	7.5%	6.4%	6.6%	5.8%	5.9%	6.3%	6.2%	6.2%	6.3%	5.7%	5.7%	
Rate of Growth																
Total Prop A Available	\$339.7	\$315.3	\$335.1	\$359.8	\$386.8	\$411.8	\$439.2	\$464.5	\$491.7	\$522.4	\$554.9	\$589.4	\$626.2	\$661.7	\$661.7	\$6,498.6
Rate of Growth		0.6%	6.3%	7.4%	7.5%	6.5%	6.7%	5.8%	5.9%	6.2%	6.2%	6.2%	6.2%	5.7%	5.7%	
TOTAL SALES TAX AVAILABLE	\$645.3	\$513.0	\$545.0	\$604.5	\$627.5	\$668.1	\$712.6	\$753.5	\$797.7	\$847.4	\$900.3	\$956.2	\$1,016.9	\$1,073.6	\$1,073.6	\$10,540.8
Rate of Growth		2.4%	6.2%	7.2%	7.4%	6.5%	6.7%	5.7%	5.9%	6.2%	6.2%	6.2%	6.2%	5.7%	5.7%	

60.0% of all LACMTA Sales Tax Revenue

Allocation of LACMTA 1997 LRP Rail Capital Funds - Estimated

	(millions)															
	1996	1997	1998	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	TOTAL
Rail Funds Available - 1																
35% - Capital	\$127.3	\$125.9	\$146.4	\$127.8	\$144.5	\$127.2	\$145.0	\$127.5	\$157.5	\$152.7	\$167.3	\$178.6	\$177.2	\$178.8	\$2,083.8	
40% - Rail Capital	\$39.0	\$55.0	\$65.0	\$98.6	\$88.4	\$117.0	\$127.0	\$134.3	\$125.1	\$134.0	\$128.0	\$132.0	\$130.0	\$130.0	\$1,513.4	
10% - Commuter Rail - 2																
Financing Proceeds	\$308.0	\$202.0	\$227.3	\$128.1	\$142.9	\$89.8	\$95.1	\$128.8	\$40.0	\$75.0	\$90.0	\$0.0	\$15.0	\$100.0	\$1,641.8	
95 Trust Fund	\$7.8															
Los Angeles	\$76.1	\$146.4														
Assessment Districts - 1	\$0.4	\$0.4	\$0.4	\$0.4	\$0.4	\$0.4	\$39.4	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$7.8
Total Local Sources	\$558.8	\$529.7	\$439.1	\$355.0	\$386.2	\$334.4	\$406.5	\$380.8	\$323.1	\$382.2	\$366.8	\$311.1	\$322.7	\$432.1	\$5,574.4	
of Local Rail Funds																
Line Allocations (87LRP CF pp. 149-158)																
North Hollywood - 1	\$71.7	\$132.8	\$134.1	\$38.1	(\$42.8)	\$0.0	(\$14.0)									\$319.9
Mid-City - 1,3	\$0.6	\$6.9	\$0.4	(\$2.8)	\$0.0	\$0.0	(\$0.1)	\$14.0	\$32.6	\$80.0	\$97.9	\$60.3	\$13.7	\$11.2	\$324.7	
Eastside - 1	\$4.8	\$15.1	\$27.8	\$61.5	\$89.2	\$10.1	\$54.4	\$23.5	(\$10.5)	(\$84.7)	(\$6.3)				\$184.9	
MOS-3 Subtotal	\$77.1	\$154.8	\$162.3	\$96.7	\$46.4	\$10.1	\$40.3	\$37.5	\$22.1	\$5.3	\$91.8	\$60.3	\$13.7	\$11.2	\$828.5	
- 2A & 2B - 1	\$205.1	\$107.2	\$10.8	\$6.0	\$0.0	\$0.0	(\$25.4)									\$303.5
- 1	\$11.4															\$11.4
TOTAL, All FFGAs	\$283.6	\$262.0	\$172.9	\$102.7	\$46.4	\$10.1	\$14.9	\$37.5	\$22.1	\$5.3	\$91.8	\$60.3	\$13.7	\$11.2	\$1,144.4	
A Rail Line Segments %	52.6%	49.5%	39.4%	28.8%	12.0%	3.0%	3.7%	9.6%	6.8%	1.6%	23.7%	19.4%	4.3%	2.6%	20.7%	
Other Rail Commitments	\$10.9	\$14.0	\$15.8													\$40.5
- 2 Enhancements - 1			\$0.1		\$45.5	\$73.2	\$107.7	\$87.0	\$13.2	\$1.5						\$5.1
- SFV - EMV - 1																\$95.7
- Westside #2 to 405 - 1																\$0.0
- Eastside #2 - 1																\$308.2
- Pasadena/LA - 3,4																\$6.3
San - Norwalk - El Segundo - 1,4																\$0.0
San - Del Norte Station - 1																\$8.3
Sanwide Costs 1,4																\$285.9
Car - 1																\$79.8
Reliab & Replacement - 1,5																\$0.0
Other Program Support - 1	\$25.5	\$24.8	\$23.8	\$17.8	\$17.7	\$17.7	\$17.2	\$18.8	\$17.0	\$0.8	\$10.9	\$5.9	\$8.6	\$10.9	\$215.4	
TOTAL, OTHER RAIL	\$108.0	\$108.4	\$84.3	\$48.6	\$83.2	\$108.7	\$143.7	\$102.6	\$49.0	\$11.0	\$21.5	\$13.7	\$23.7	\$130.5	\$1,038.9	
Rail Commitments %	19.3%	20.1%	19.2%	14.0%	21.5%	32.8%	35.4%	28.2%	15.2%	3.0%	5.8%	4.4%	7.3%	30.2%	18.7%	
Borrowing Costs - 1	\$166.3	\$154.6	\$162.9	\$203.8	\$218.8	\$227.9	\$241.9	\$248.8	\$252.8	\$267.6	\$261.3	\$269.1	\$278.8	\$278.8	\$3,234.7	
Borrowing Cost % of Revenues	28.0%	29.2%	41.7%	57.4%	58.9%	68.2%	69.5%	63.9%	70.2%	71.1%	67.7%	66.5%	68.4%	64.8%	68.4%	
Rail Outlays	\$557.9	\$522.9	\$440.1	\$356.1	\$349.2	\$347.7	\$400.5	\$389.7	\$323.7	\$273.9	\$374.4	\$343.1	\$316.2	\$420.5	\$5,418.0	
Million/GAN Treatment - 6	\$0.7	\$6.8	(\$1.0)	(\$1.1)	\$37.0	(\$13.3)	\$8.0	\$1.2	(\$0.8)	\$98.3	\$11.4	(\$32.0)	\$8.6	\$11.8	\$121.4	
Rail Outlays % of Funding	99.9%	99.7%	100.2%	100.3%	99.4%	104.0%	98.5%	99.7%	100.2%	76.6%	97.0%	110.3%	98.0%	97.3%	97.8%	

1997 LRP Cash Flows 1/20/97 or 1/22/97 sheets if more recent than Construction Division figures. These sources of funds are excluded because they are assumed to be not available for Red Line FFGA projects. Construction Division Recovery Plan Cash Flow, 1/29/97, Spreadsheet CFLOW2QTER87.xls. C 25% excluded, not available for MOS-3. The 1997 LRP Cash Flows show this category running a net surplus of state and federal funds with an \$87 million cash balance in 2008/10. The GANS are an advance of federal funds.

LACMTA 1997 LRP Bus & Rail Operations Analysis

(millions)

ca: 1997 Long Range Plan Cash Flows, does not include commuter rail or highway funds.

	1988	1987	1988	1989	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	TOTAL
Operations Analysis																
97LRP Bus Operations Cost	\$595.8	\$565.1	\$572.6	\$598.3	\$641.5	\$676.5	\$710.1	\$762.3	\$786.7	\$810.2	\$836.2	\$863.8	\$891.1	\$920.5	\$920.5	\$10,230.7
Growth Rate		-5.2%	1.3%	4.5%	7.2%	5.5%	5.0%	7.4%	3.2%	3.0%	3.2%	3.3%	3.2%	3.3%	3.3%	
Revenues Projected	\$194.0	\$194.0	\$204.9	\$218.8	\$231.3	\$231.3	\$248.3	\$248.3	\$266.4	\$266.4	\$283.5	\$283.5	\$301.9	\$301.9	\$301.9	\$3,474.5
Growth Rate		0.0%	5.6%	6.8%	5.7%	0.0%	7.3%	0.0%	7.3%	0.0%	6.4%	0.0%	6.5%	0.0%	0.0%	
Facebox %	32.6%	34.3%	36.8%	36.6%	38.1%	34.2%	36.0%	32.6%	33.8%	32.9%	33.9%	32.8%	33.9%	32.8%	32.8%	34.0%
iciencies Assumed in LRP Projections																
Identified Savings	\$0.0	(\$7.6)	(\$11.7)	(\$14.8)	(\$16.5)	(\$18.1)	(\$19.8)	(\$24.4)	(\$25.2)	(\$26.0)	(\$26.8)	(\$27.7)	(\$28.6)	(\$29.5)	(\$29.5)	(\$276.8)
Savings Not Yet Identified	\$0.0	(\$9.7)	(\$6.2)	(\$3.7)	(\$2.6)	(\$1.9)	(\$0.8)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$24.9)
Agency-Wide Savings	\$0.0	(\$45.3)	(\$53.8)	(\$51.3)	(\$37.4)	(\$28.1)	(\$26.8)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$232.7)
Subtotal, Efficiencies in Bus Ops	\$0.0	(\$62.8)	(\$71.7)	(\$69.8)	(\$56.5)	(\$48.1)	(\$47.4)	(\$24.4)	(\$25.2)	(\$26.0)	(\$26.8)	(\$27.7)	(\$28.6)	(\$29.5)	(\$29.5)	(\$544.6)
onstrained Bus Ops Cost Base	\$595.8	\$627.9	\$644.3	\$668.1	\$698.0	\$724.6	\$757.5	\$786.7	\$811.9	\$836.2	\$863.0	\$891.5	\$919.7	\$950.0	\$950.0	\$10,775.2
% Cost Growth to be Cut	0	10.0%	11.1%	10.4%	8.1%	6.6%	6.3%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	5.1%
Facebox % Without Savings	32.6%	30.9%	31.8%	32.7%	33.1%	31.0%	32.8%	31.6%	32.8%	31.9%	32.9%	31.8%	32.8%	31.8%	31.8%	32.2%
Discretionary Inflow - MTA	\$76.9	\$30.1	\$8.0	\$11.8	\$20.7	\$35.0	\$33.2	\$47.8	\$39.2	\$43.8	\$45.2	\$49.1	\$50.6	\$52.2	\$52.2	\$543.8
Allocated to MTA Expansion	\$6.2	\$0.5	\$2.5	\$5.9	\$20.7	\$25.0	\$26.7	\$35.5	\$36.6	\$43.8	\$45.2	\$46.7	\$48.2	\$49.8	\$49.8	\$383.3
Discretionary Inflow - MTA	\$115.8	\$125.0	\$132.9	\$144.0	\$154.8	\$164.8	\$175.8	\$185.9	\$196.8	\$209.1	\$222.1	\$235.9	\$250.7	\$264.9	\$264.9	\$2,678.5
97LRP Bus Ops Costs = Prop C 40%	12.9%	5.3%	1.4%	2.0%	3.2%	5.2%	4.7%	6.3%	5.0%	5.4%	5.4%	5.7%	5.7%	5.7%	5.7%	5.3%
97LRP Bus Ops Costs = Prop C 5%	1.7%	1.9%	2.0%	2.1%	2.1%	2.1%	2.1%	2.1%	2.2%	2.2%	2.3%	2.4%	2.4%	2.5%	2.5%	2.2%
97LRP Bus Ops Costs = Prop A 40%	19.4%	22.1%	23.2%	24.1%	24.1%	24.4%	24.8%	24.4%	25.0%	25.6%	26.6%	27.3%	28.1%	28.8%	28.8%	25.2%
Sales Tax % of Bus Operations	34.1%	29.4%	26.6%	28.1%	29.4%	31.6%	31.6%	32.8%	32.2%	33.4%	34.3%	35.4%	36.2%	36.9%	36.9%	32.7%
Operations Analysis (Excluding Metrolink)																
MTA 97LRP Rail Operations Cost	\$97.8	\$107.3	\$126.6	\$131.3	\$144.1	\$149.6	\$155.1	\$160.8	\$166.0	\$213.0	\$219.8	\$227.1	\$248.2	\$256.4	\$256.4	\$2,403.1
Growth Rate		9.7%	18.0%	3.7%	9.7%	3.8%	3.7%	3.7%	3.2%	28.3%	3.2%	3.3%	8.3%	3.3%	3.3%	
Revenues Projected																
Red	\$5.7	\$5.7	\$17.9	\$17.9	\$26.5	\$26.5	\$28.5	\$28.5	\$30.5	\$37.0	\$39.4	\$39.4	\$49.5	\$49.5	\$49.5	\$402.5
Blue	\$5.8	\$5.8	\$9.1	\$9.1	\$9.7	\$9.7	\$10.5	\$10.5	\$11.2	\$18.2	\$19.4	\$19.4	\$20.7	\$20.7	\$20.7	\$179.8
Green	\$1.7	\$1.7	\$3.4	\$3.4	\$4.0	\$4.0	\$4.4	\$4.4	\$4.7	\$4.8	\$5.1	\$5.1	\$5.5	\$5.5	\$5.5	\$57.7
Rail Fares, Subtotal	\$13.2	\$13.2	\$30.4	\$30.4	\$40.2	\$40.2	\$43.4	\$43.4	\$46.4	\$60.0	\$63.9	\$63.9	\$75.7	\$75.7	\$75.7	\$640.0
Facebox %	13.5%	12.3%	24.0%	23.2%	27.9%	26.9%	28.0%	27.0%	28.0%	28.2%	29.1%	28.1%	30.5%	29.5%	29.5%	26.6%
Discretionary Inflow	\$9.5	\$33.7	\$63.2	\$36.9	\$42.8	\$18.3	\$24.6	\$0.0	\$4.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$233.5
RA Rail Inflow	\$32.7	\$21.3	\$10.0	\$40.0	\$36.0	\$65.0	\$60.0	\$89.3	\$72.0	\$91.1	\$91.7	\$96.5	\$115.0	\$130.0	\$130.0	\$950.8
97LRP Rail Ops = Prop C 40%	8.7%	31.4%	48.9%	28.1%	28.7%	12.2%	15.9%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.7%
97LRP Rail Ops = Prop C 5%	10.4%	10.3%	9.2%	9.6%	9.3%	9.6%	10.0%	10.0%	10.2%	8.5%	8.7%	9.0%	8.7%	8.9%	8.9%	9.3%
97LRP Rail Ops = Prop A 35%	33.4%	19.9%	7.9%	30.5%	25.0%	43.1%	38.7%	55.5%	43.4%	42.8%	41.7%	42.5%	46.3%	50.7%	50.7%	39.6%
Sales Tax % of Rail Operations	53.6%	61.5%	67.0%	68.1%	63.9%	65.2%	64.3%	65.5%	66.3%	61.2%	60.5%	61.5%	65.1%	69.6%	69.6%	58.6%

Appendix 2

LACMTA Operating Deficit Analysis

TECHNICAL MEMORANDUM

February 12, 1997

**RE: LOS ANGELES COUNTY MTA FINANCIAL CAPACITY ANALYSIS
BUDGET VS. ACTUAL HISTORY FOR TRANSIT OPERATIONS**

An analysis of MTA's budgeted versus actual results for transit operations indicates the agency has not met its deficit reduction projections. For the three most recently completed fiscal years, the unanticipated shortfall in the agency's Enterprise Fund budget, which consists of bus and rail operations, was approximately \$85 million. MTA is projecting an additional deficit of \$11- 12 million for the current fiscal year. To be sure, MTA has met with a string of adverse events over the past several years. Nonetheless, this accumulated deficit must be funded by the agency's other financial resources. The structural operating deficits have depleted the agency's reserve funds, leaving less margin for error.

The summary table below shows that unfavorable budget variances have occurred mostly on the expense side over time, although there are revenue shortfalls in each year as well (see Tables 2 and 3 for detail). This trend has important implications regarding the achievability of the agency's latest draft Long Range Transportation Plan, given the high level of cost savings slated from transit operations.

Table 1
LACMTA Enterprise Fund
Budget versus Actual Results

(\$Million)	Revenue Variance	Expense Variance	Surplus/(Deficit) Variance
Projected FY 1996/ 97	(\$10.9)	\$0.0	(\$10.9)
FY 1995/96	(\$3.6)	(\$65.5)	(\$69.1)
FY 1994/95	(\$0.6)	(\$4.6)	(\$5.2)
FY 1993/94	(\$3.3)	(\$9.0)	(\$12.3)
Total for Period	(\$18.4)	(\$79.1)	(\$97.5)

We have not undertaken a detailed operational analysis of the budget variances shown, although several underlying trends, which are shown in Tables 2 and 3 are worth pointing out and should be monitored over the months ahead:

Table 2
LAGMTA
Comparison of Budget vs. Actual Transit Operations Results
(\$Million)

Line Item	FY 93/94		FY 94/95		FY 95/96		FY 96/97		FY 98/97		Variance Favorable (Unfavorable)	FY 98/97 Projected
	Adopted Budget(A)	Actual(B)	Adopted Budget(A)	Actual(B)	Adopted Budget(A)	Actual(A)	Adopted Budget(A)	Actual(A)	Adopted Budget(A)	Actual(A)		
Total Revenue and Expenses												
Salaries	\$224.1	207.2	\$241.7	\$198.3	\$212.6	\$208.4	\$228.6	\$105.3	\$208.2	\$8.3	(\$20.4)	\$210.6
Other System	\$5.0	28.7	\$6.1	\$18.4	\$7.1	\$8.2	\$8.3	\$4.9	\$8.3	\$0.0	\$0.0	\$8.8
Subtotal	\$229.1	235.9	\$247.8	\$214.8	\$219.7	\$216.6	\$236.9	\$110.2	\$216.5	\$8.3	(\$20.4)	\$219.4
Proposition A/B/C	\$246.1	248.2	\$188.6	210.3	\$213.6	\$213.6	\$248.3	\$123.1	\$248.6	\$0.0	\$0.0	\$248.2
DA	\$127.6	127.4	\$121.3	128.3	\$138.4	\$137.7	\$141.9	\$70.1	\$142.7	\$0.0	\$0.0	\$140.2
State	\$45.8	45.8	\$16.4	17.4	\$27.8	\$27.8	\$19.7	\$9.7	\$22.0	\$0.0	\$0.0	\$19.4
Federal	\$45.0	46.9	\$47.1	48.0	\$51.1	\$49.1	\$41.1	\$20.3	\$47.2	\$0.0	\$0.0	\$40.6
Local	\$1.8	2.4	\$2.1	16.0	\$6.1	\$5.6	\$5.9	\$0.8	\$5.9	\$0.0	\$0.0	\$1.6
Job/Interest	\$11.7	0.0	\$11.1	0.0	\$7.3	\$19.0	\$41.3	\$2.3	\$41.3	\$0.0	\$0.0	\$4.6
Total Revenue	710.1	706.8	\$634.3	633.8	\$684.1	\$680.6	\$734.1	\$338.6	\$723.2	\$0.0	(\$10.8)	\$673.0
Salaries & Wages	\$389.6	343.8	\$324.1	310.3	\$277.8	\$302.1	\$285.3	\$154.0	\$304.0	\$0.0	(\$18.7)	\$308.0
fringe Benefits	\$131.2	189.6	\$178.8	162.7	\$148.8	\$188.6	\$161.8	\$87.0	\$171.8	\$0.0	(\$10.1)	\$174.0
Services	\$42.4	42.7	\$37.6	10.8	\$27.8	\$33.6	\$41.0	\$12.7	\$25.4	\$0.0	\$18.8	\$25.4
Materials & Supplies	\$77.8	78.4	\$82.6	82.6	\$82.7	\$74.4	\$88.8	\$33.1	\$82.1	\$0.0	\$8.8	\$88.2
Utilities	\$14.0	13.6	\$12.8	12.4	\$13.6	\$14.6	\$11.6	\$6.2	\$11.6	\$0.0	\$0.0	\$12.4
Casualty & Liability	\$28.6	22.2	\$24.3	34.2	\$28.4	\$30.4	\$31.5	\$14.8	\$31.6	\$0.0	\$0.0	\$29.8
Miscellaneous	\$14.1	13.8	\$20.0	16.6	\$14.8	\$3.6	\$14.1	\$1.2	(\$1.0)	\$0.0	\$2.4	\$2.4
Interest Expense	\$14.7	17.1	\$14.7	21.1	\$22.4	\$8.3	\$64.2	\$2.8	\$53.3	\$0.0	\$0.0	\$5.6
Allocated Overhead	\$0.0	0.0	\$2.6	18.3	\$58.7	\$76.3	\$88.1	\$45.2	\$89.9	\$0.0	\$0.0	\$89.4
Total Expenses	\$710.1	718.1	\$634.3	\$638.0	\$666.0	\$720.6	\$734.7	\$357.1	\$734.7	\$0.0	\$0.0	\$714.2
Surplus/Deficit	(\$0.0)	(\$12.3)	(\$0.0)	(\$5.2)	(\$8.1)	(\$60.0)	(\$0.6)	(\$20.6)	(\$11.5)	(\$11.5)	(\$10.8)	(\$41.2)
Expenses by Modas												
Bus(D)	\$638.0	\$652.1	\$666.8	\$688.0	\$657.8	\$630.7	\$628.1	\$301.7	\$618.4	\$0.0	\$12.7	\$618.4
Line Item	\$52.7		\$47.3		\$44.7	\$47.1	\$41.9	\$30.8	\$48.1	\$0.0	(\$7.2)	\$48.1
Fixed Line	\$20.8		\$21.4		\$30.1	\$17.0	\$33.7	\$15.1	\$39.4	\$0.0	(\$6.7)	\$30.2
Grant Line	\$0.0		\$0.0		\$22.8	\$24.8	\$30.0	\$8.6	\$29.8	\$0.0	\$0.2	\$19.8
Subtotal (Total(D))	\$735.5	\$87.0	\$687.7	\$63.0	\$87.4	\$88.8	\$105.6	\$65.4	\$118.3	\$0.0	(\$12.7)	\$110.8
Total Expenses	\$710.1	\$718.1	\$634.3	\$638.0	\$666.0	\$720.6	\$734.7	\$357.1	\$734.7	\$0.0	\$0.0	\$727.2

Source: MTA Office of Management and Budget (OMB) report
Source: FY 1997 Budget
Salaries and Wages and Expenses by Modas figures reflect \$2 million adjustment for misallocated costs per OMB
FY 93/94 and 94/95 Expenses by Modas are estimates provided by OMB staff.

LACMTA Operations Budget vs. Actual Analysis
February 12, 1997

- Actual fare revenues have regularly fallen below budget, even before fare levels were frozen per the consent decree.
- Actual salary and wages and fringe benefits in aggregate have exceeded budget by at least \$10 million each year, with the exception of FY 94/95,
- Allocated overhead costs are increasing considerably. While allocated overhead did not exist prior to FY 94/95, the factors driving the large increase over the past two years should be documented.
- Bus operating expense overruns have been large until the current fiscal year, while rail operating costs have been lower than budgeted except for FY 96/97 (see table below). As new lines open, rail operations will become a bigger factor and the projected increases in rail farebox recovery ratios will need to be realized.

Table 3
Transit Operations Expenses by Mode
Budget versus Actual Results

(\$Million)	Bus Operations	Rail Operations	Total
Projected FY 1996/ 97	\$12.7	(\$12.7)	\$0.0
FY 1995/96	(\$73.1)	\$7.6	(\$65.5)
FY 1994/95	(\$20.4)	\$15.7	(\$4.6)
FY 1993/94	(\$15.5)	\$6.5	(\$9.0)
Total for Period	(\$96.3)	\$17.1	(\$79.1)

FY 1997 Projections

FY 1997 full year projections based on December year-to-date results from the draft December FY 97 Financial Update show an \$11 million deficit.¹ A \$21 million projected shortfall in fare revenues is driving this result. Part of the fare shortfall is offset by \$9 million in additional formula funds that MTA received in the mid-year reallocation. The expense side shows no change from budget on a full year basis, but assumes cost overruns in the fall related to the CNG bus problems are offset by operating efficiencies in the Spring, although no details are provided.

¹Office of Management & Budget staff indicated that while some wording changes are likely to the Financial Update, the numbers have been finalized.

Notes on Historical Budgeting Process

The introductory message from the Chief Executive Officer in each of the last three adopted budgets contain similar themes: (1) the budget process started with a large deficit; (2) the deficit is balanced, at least in part, through some significant cost cuts; (3) there is an acknowledgement that solving the structural deficit issue long-term will be very difficult. The following are notes from each of the last 3 budget messages.

Fiscal 1997 Budget

- "We have overcome a potential \$40 million operating deficit to present a balanced budget without reliance on one-time revenues, reduced service or increased fares. We have achieved this through tightly controlling expenses and benefiting from an improving economic outlook."
- Noted that FY 1996 budget assumed a reduction in operator salaries and fringe benefits of over \$20 million without a reduction in service levels and that the reduction did not materialize.
- Also noted that in FY 1995 actual operating revenue was \$44 million below budget, due to a fare increase that did not materialize and that the budget was ultimately balanced through one time revenue and significant staff reductions.

Fiscal 1996 Budget

- "Overall, we began the FY96 budget process with the potential for a \$108 million operating deficit.... To eliminate the budget gap and create an organization that meets the needs of our constituencies while operating within our means, we developed an aggressive set of management and financial objectives.... Internal cost reductions, detailed in the Operating Budget section, have resulted in the net reduction of over 600 positions, representing approximately \$43 million in savings."
- Included \$9 million surplus to fund the first year of a three year program to eliminate the prior years' accumulated \$27 million deficit (which is now approximately \$85 million).
- Explicitly recognized the reliance on one-time and discretionary revenue sources for this budget.

Fiscal 1995 Budget

- "This structural gap between operating costs and revenues has existed for several years but had been offset previously with reserve funds. That option no longer exists since the reserves are effectively exhausted."
- Adopted the recommendations of a Deloitte & Touche study to address a projected \$126 million agency-wide operating budget gap. The shortfall was to be addressed through internal cost reductions (\$27 million), net fare adjustments (\$25

LACMTA Operations Budget vs. Actual Analysis
February 12, 1997

million), service adjustments (\$21 million), labor (\$14 million), and new or reallocated resources (\$39 million).

- Proposed fare structure increase service changes prompted legal action eventually resulting in Consent Decree.
- Was to have avoided reliance on unspecified cost savings.
- FY 1994 fare revenue and other budget shortfalls required use of all remaining discretionary funds to balance books.

Next Steps

As part of its latest Long Term Transportation Plan, MTA has identified a series of operating cost reduction measures, some of which are quite specific. Over the coming months it will be necessary to monitor the implementation of these programs as well as assess the overall budget picture to gauge the level of funding resources demanded by transit operations. This, in turn, will help to flag potential funding gaps for Red Line construction.

Appendix 3

LACMTA Debt Capacity Analysis

Chart 1
MTA Rail Capital Bond Coverage Ratios
Assuming No Additional Bonds Issued in 1997 LRP
(Except for "Actual/Treasury" Bonds already issued in FY 1997)

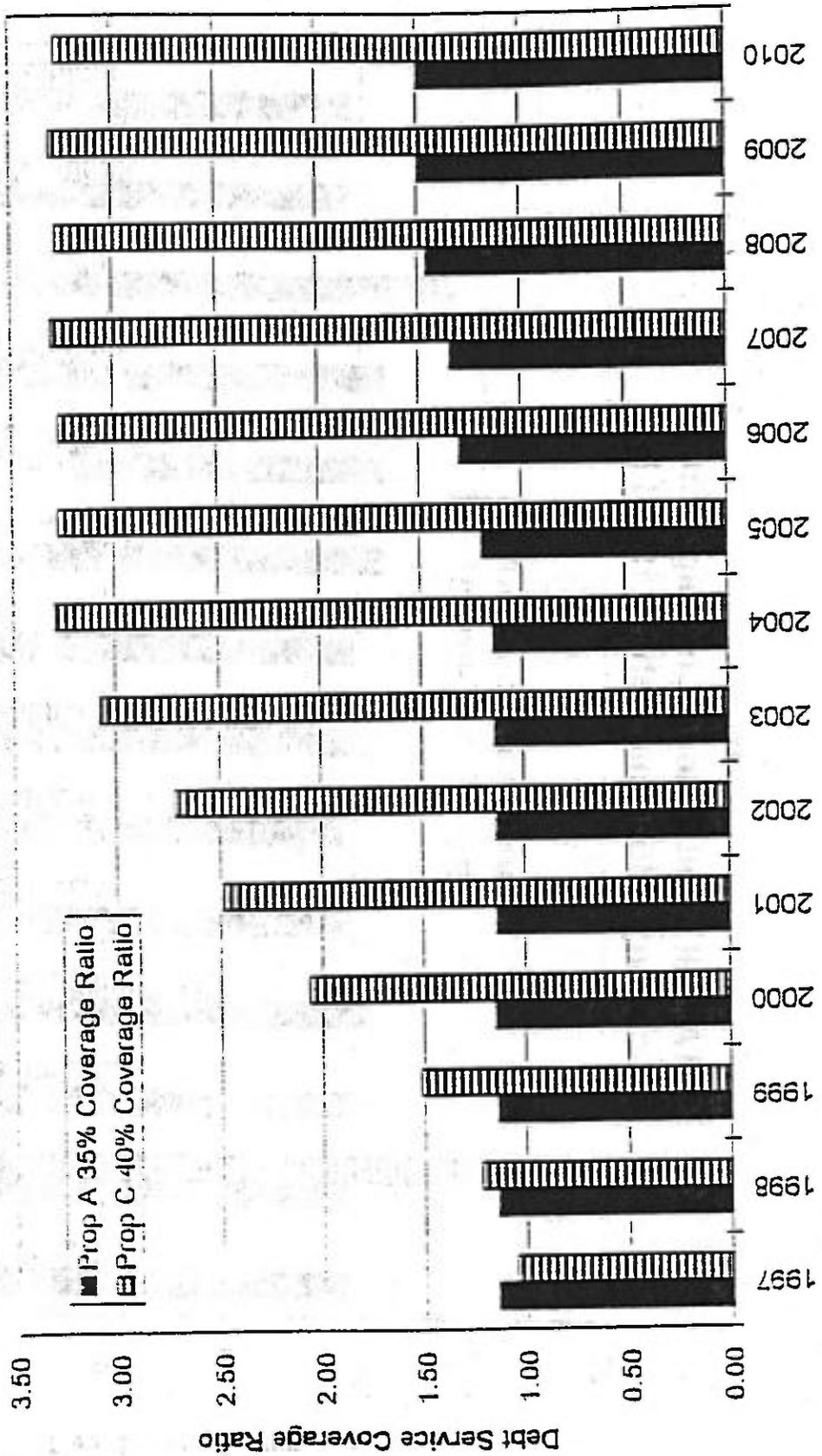


Chart 2
MTA Rail Capital Bond Coverage Ratios
Including Additional Debt in 1997 LRP

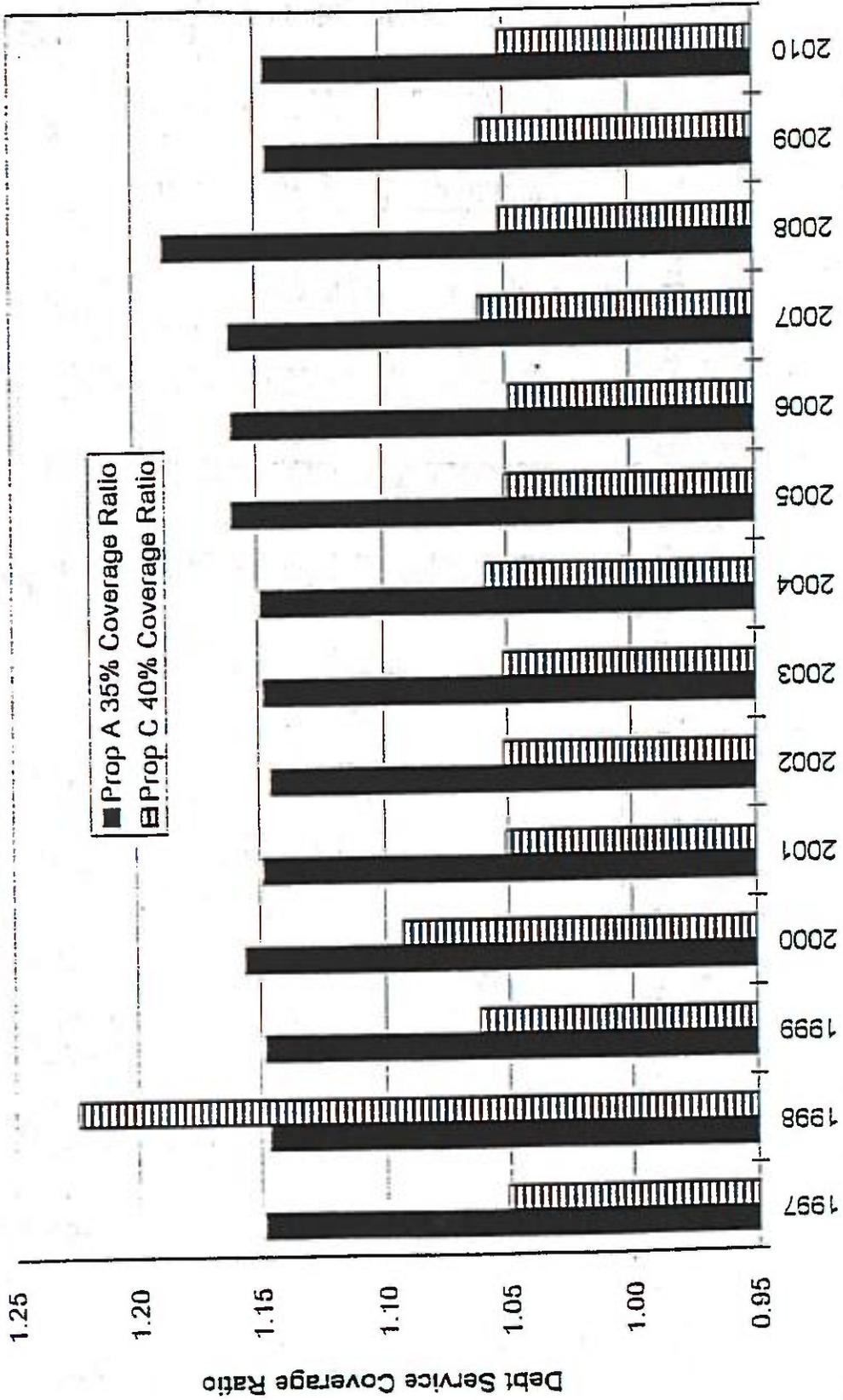


Chart 3
MTA Rail Capital
Gross Proceeds from Bond Issuance in 1997 LRP
Prop A 35% & Prop C 40%

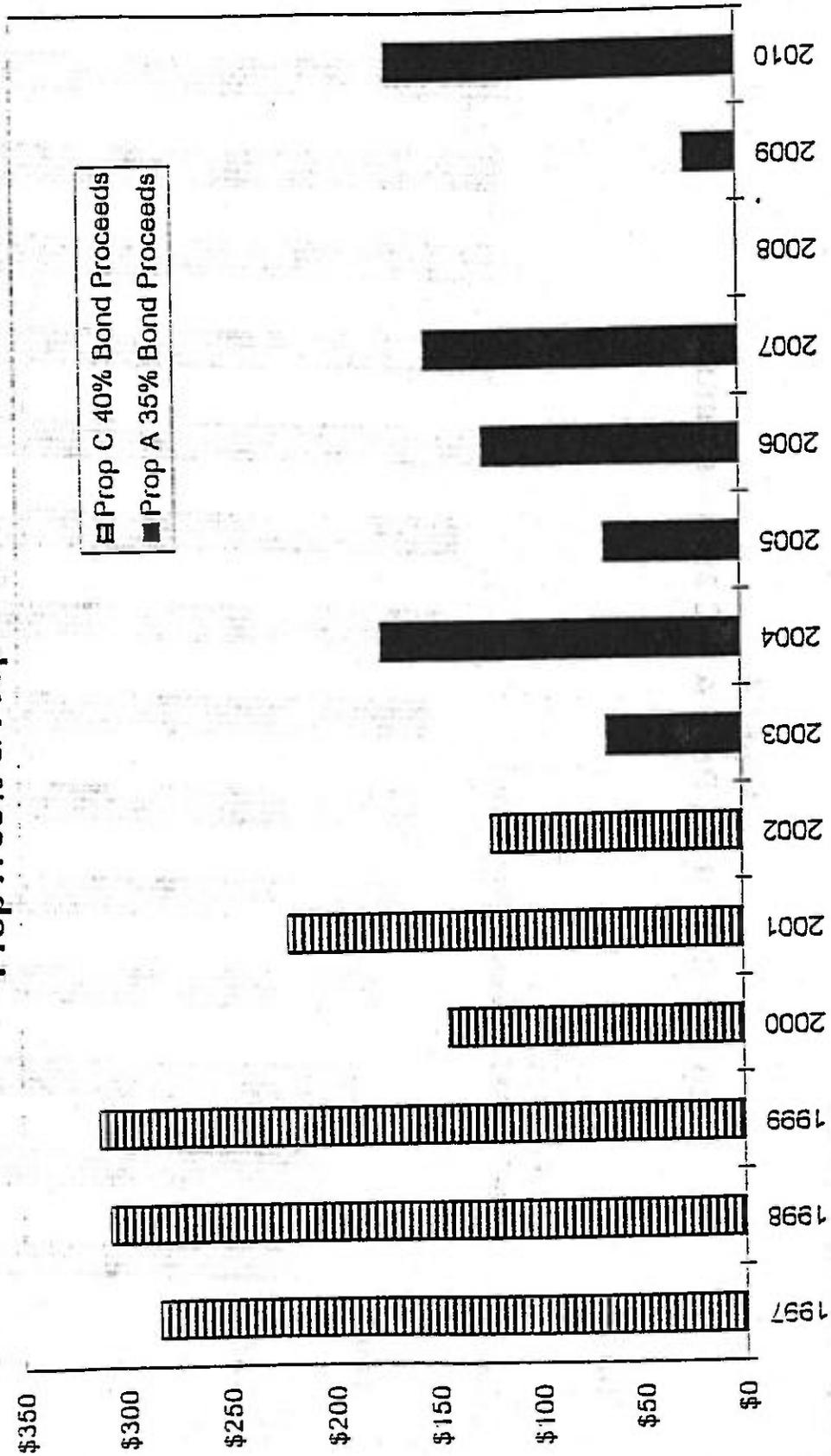


Chart 4
Prop A & C Debt vs. Prop A & C MTA Revenues

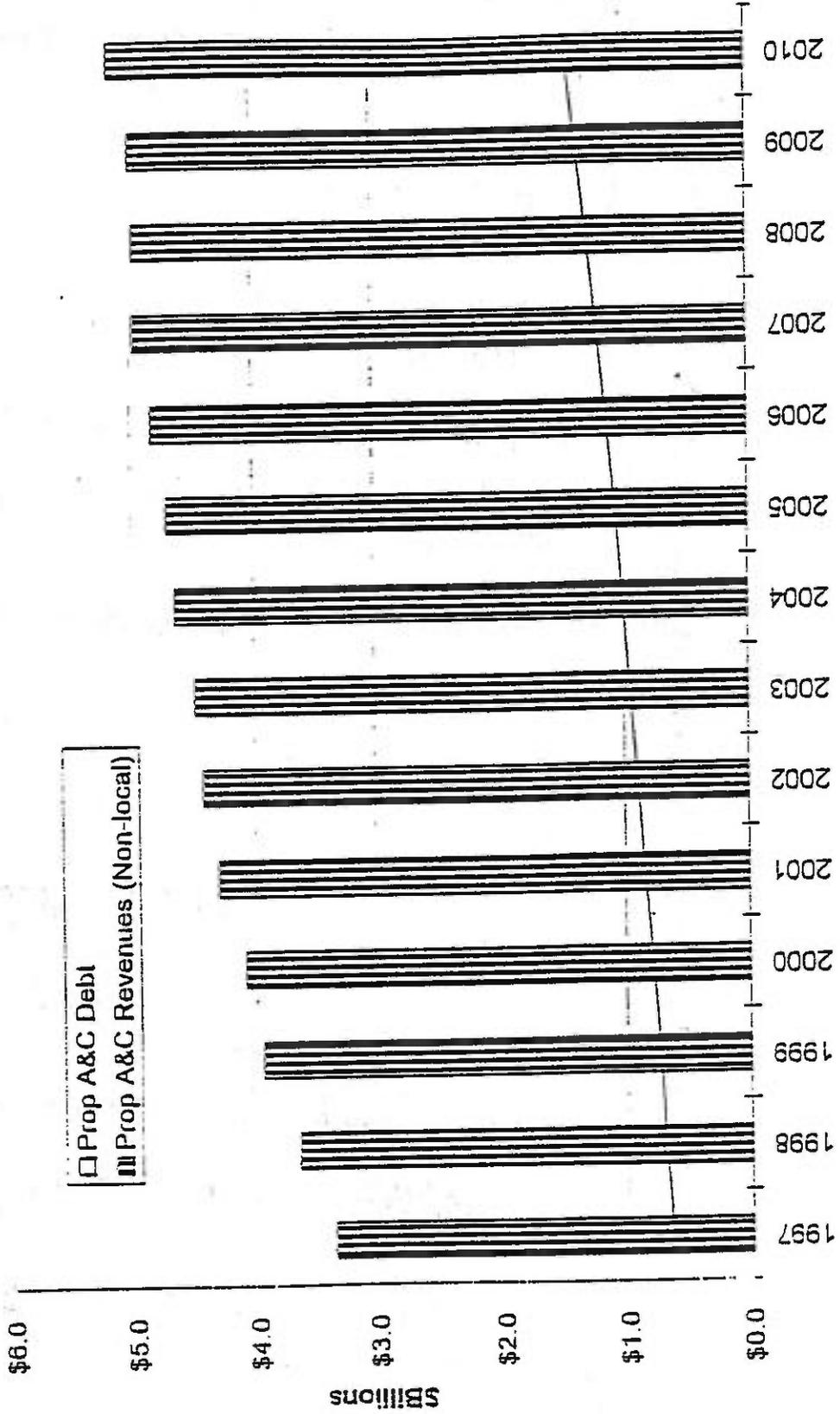


Chart 5
Ratio of Prop A & C Debt Outstanding to
MTA Prop A&C Revenue

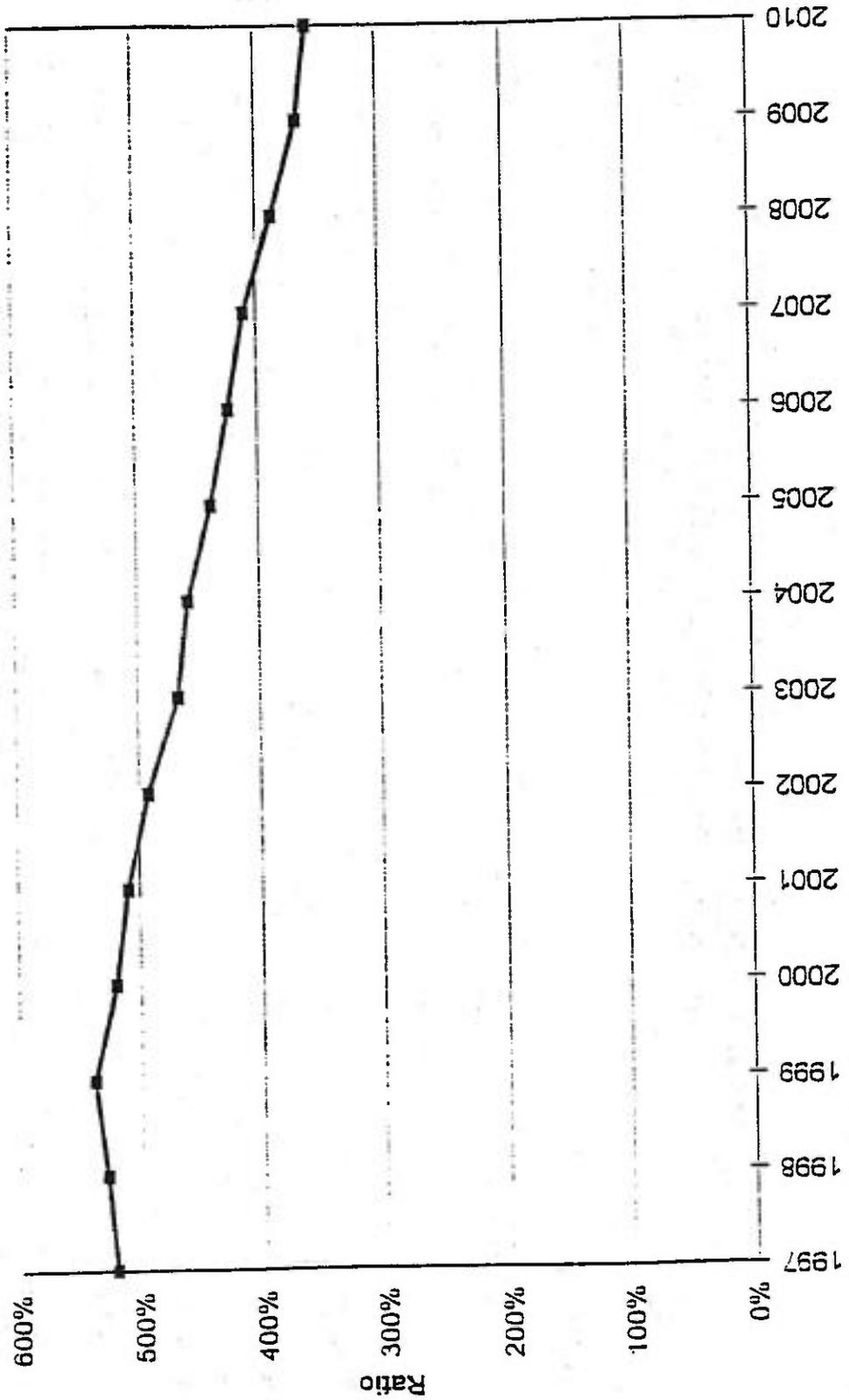


Chart 6
Transit Operations and Debt Service as Percentages
of Prop A35% and Prop C40% Revenues

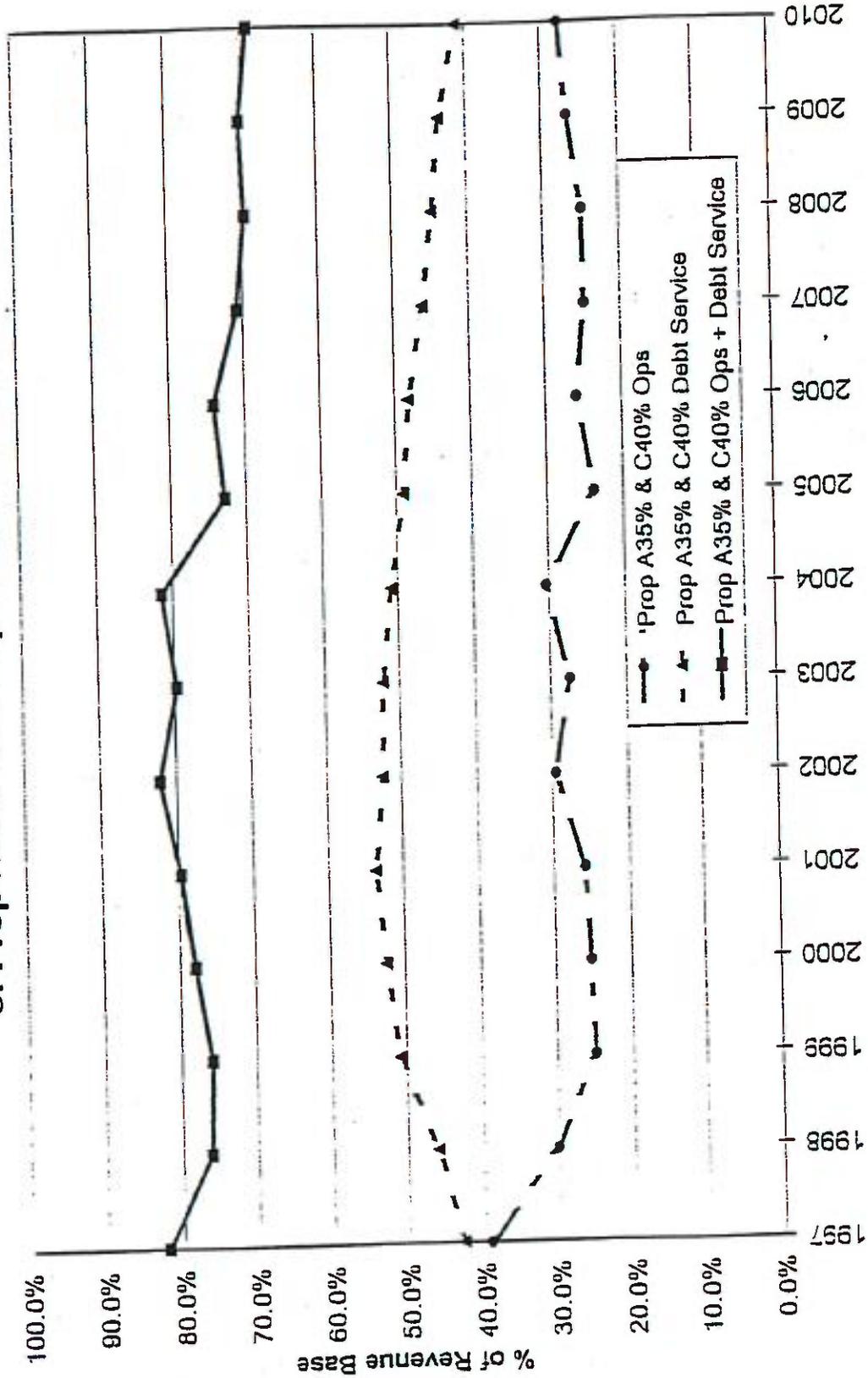


Chart 7
Prop A 35% and C40% Debt Service as Percentages
of Prop A 35% and Prop C40% Revenues

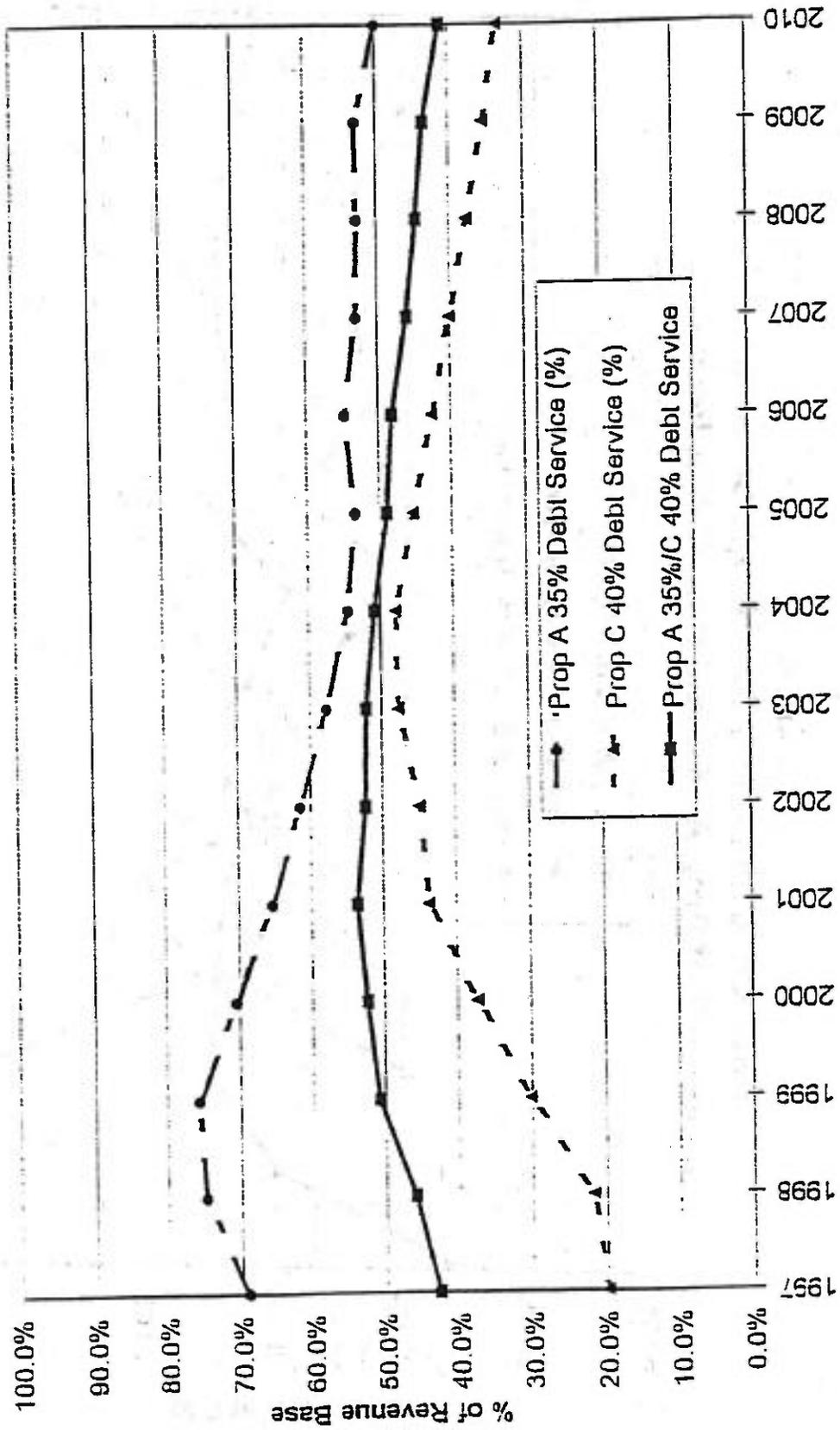
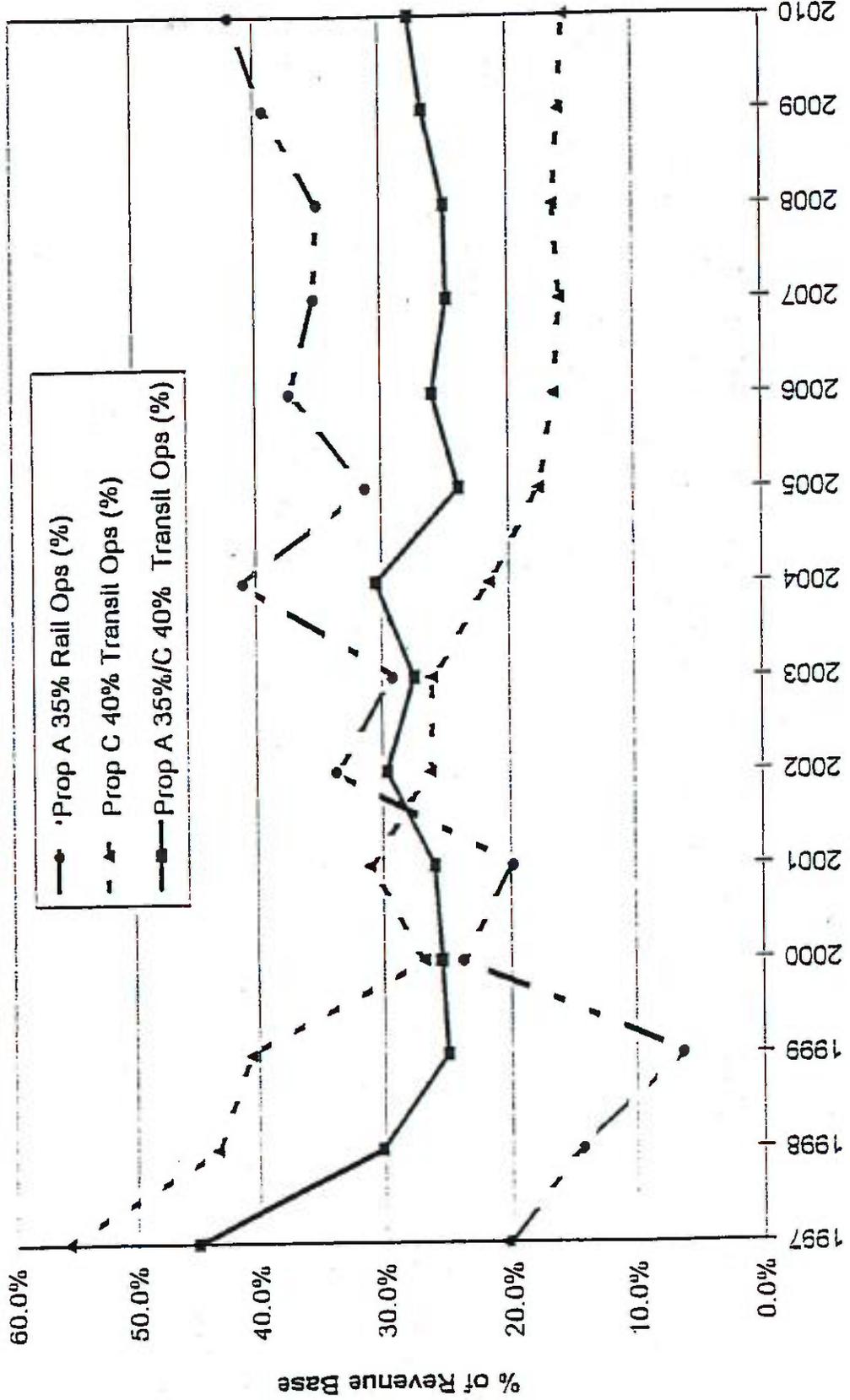
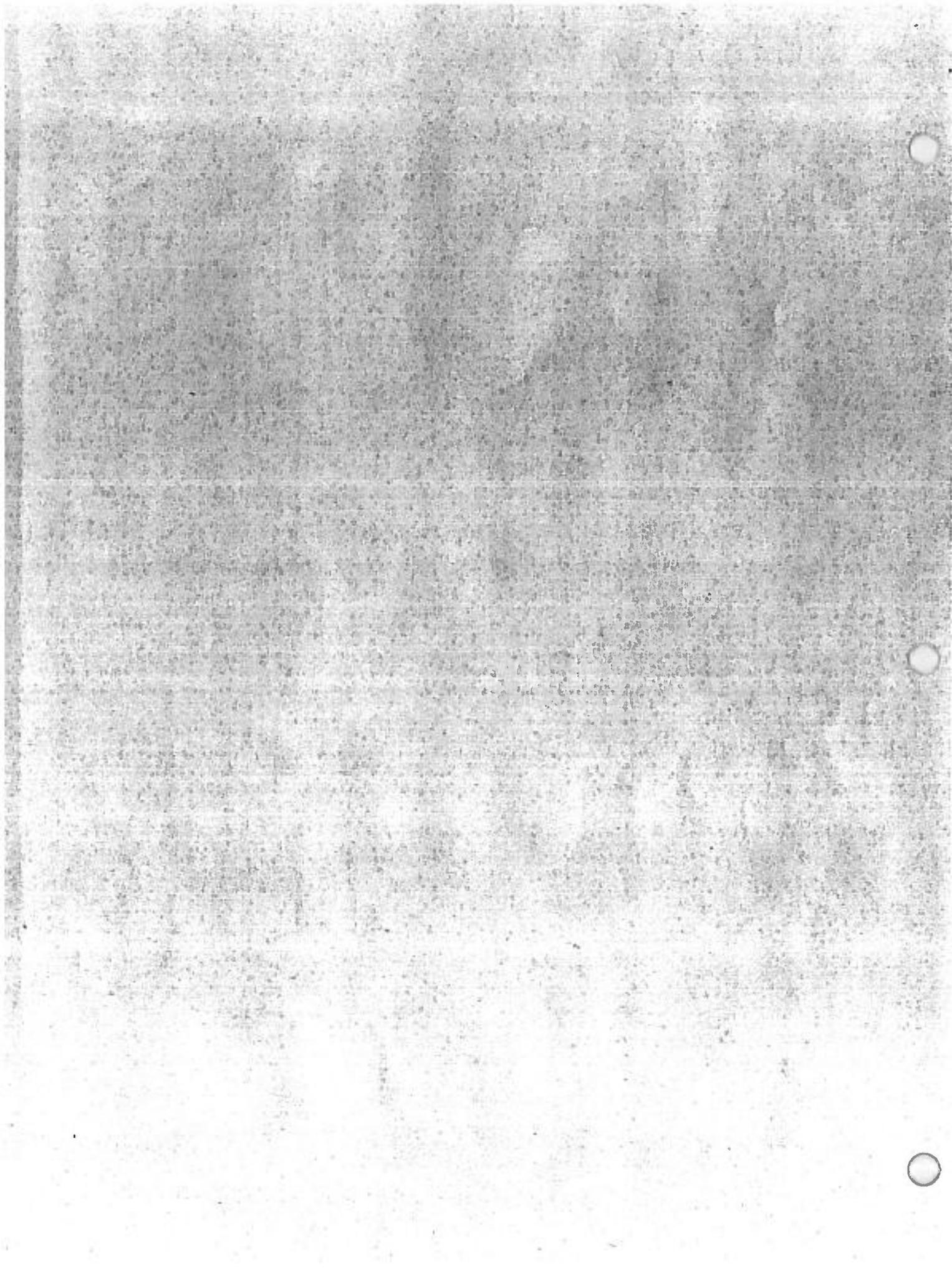


Chart 8
Prop A 35% and C40% Transit Ops Spending
as Percent of Prop A 35% and Prop C 40% Revenues



Appendix 4

LACMTA Sales Tax Revenue Analysis



LOS ANGELES COUNTY MTA FINANCIAL CAPACITY ANALYSIS
TECHNICAL MEMORANDUM

March 6, 1997

RE: ANALYSIS OF SALES TAX REVENUE VARIABILITY

Summary

Los Angeles County MTA's sales tax revenues are cyclical by nature and some level of year to year fluctuation is to be expected. Between FY 1984 and 1996, annual growth rates for Proposition A have ranged from 13.1% (in 1985) to -8.5% (in 1992), while the compound annual growth rate during this period was 3.7%. By comparison, the 1997 Long Range Plan (LRP) projects Proposition A and C revenues to grow at a compound annual rate of 6.4% during the FY 1997 to 2010 period without any provision for normal cyclical variation. In light of the large role sales tax receipts play in MTA's finances and the degree to which they are leveraged in the 1997 LRP, it is risky to program 100% of anticipated sales tax revenues because of

- the inevitable variation in sales tax revenues over time; and
- the high forecast rate of revenue growth relative to historical results.

A capital reserve would mitigate the risk that normal sales tax variation will disrupt capital and operating commitments, particularly in the early years of the 1997 LRP when aggressive sales tax growth forecasts are coupled with high expectations for operating cost savings.

Discussion

MTA's sales tax revenue estimates are prepared by the UCLA Business Forecasting Project (UCLA/BFP), one of the few organizations generating projections specifically for Los Angeles County. Its forecast of Proposition A and C revenue growth reflected in the 1997 LRP varies slightly from year to year, increasing at an annual rate of more than 7% in three out of the first 5 years, and tapering off to less than 6% by FY 2010 (see Chart 1). The higher near term growth rates are important because they quickly increase the revenue base upon which more moderate future growth is applied. Further, the lack of cyclicaliry in the forecast suggests that it is intended to serve as a smoothed long-term growth rate—a "base case", perhaps.

To help assess the effects of economic variability, many leading econometric organizations create several different forecast scenarios for consideration (e.g., WEFA Group provides high, medium and low cases). Such analyses are used by corporations and public entities to structure capital investment programs, develop contingency plans and quantify reserve requirements. Based on our discussions with MTA staff, UCLA/BFP does not generate such scenarios, nor does it release statistical variance measures which may be used to gauge the sensitivity of the 1997 LRP to sales

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Analysis of Sales Tax Revenue Variability

tax revenue volatility. We believe it is prudent to consider the effects of an economic downturn, or at least a more conservative, stable growth scenario in addition to this base case. MTA staff has indicated that no such formalized study has been undertaken recently.

As shown in Charts 2 and 3, Proposition A revenues have varied significantly over time. They reflect the prolonged economic downturn in Southern California in the early 1990's as well as the strengthening local economy and higher inflation rates between FY 1984 and 1985. Given this variability, it is more appropriate to look at average growth rates over longer periods of time as a benchmark for future growth. Historical compounded annual growth rates are presented in Table 1 below using different starting points to illustrate the effect of year to year fluctuations on longer-term growth rates.

Table 1

Starting LACMTA Fiscal Year	Prop A Compounded Annual Growth Rate Through FY 1996
1984	3.7%
1985	2.8%
1986	2.6%
1987	2.3%
1988	1.6%
1989	0.9%
1990	(0.1)%
1991	(0.3)%

The table above shows that the highest growth rate for any period (at least five years long) is 3.7%, while FY 1996 revenues were actually lower than in 1990 or 1991. To gauge the effect of lower growth rates, Chart 4 compares forecast Proposition A and C revenues per the 1997 LRP relative to constant growth rates of 3.7% (the highest rate in Table 1) and 2.0% (near the historic mid-point). A comparison of cumulative revenue totals presented in Table 2 below shows the magnifying effect of sustained lower growth rates.

Analysis of Sales Tax Revenue Variability

Table 2

	Prop A&C Revenue Growth Rate	Cumulative Prop A&C Revenue (\$billions)
LRP "Base Case"	6.4%	\$18.1
Range of Historical Experience	3.7%	\$14.8
	2.0%	\$13.0

While year to year fluctuations will have much lesser effects than long-term compound growth rate assumptions, their inevitability argues against programming 100% of forecasted revenues and for maintaining an adequately scaled reserve which reflects the statistical range of likely revenue variation.

Conclusion

In light of the relatively high sales tax growth rate forecasts built into the 1997 LRP and their susceptibility to cyclicalities, a capital reserve to guard against the financial disruptions caused by potential shortfalls is needed to mitigate the risks in the proposed Recovery Plan. The size of this reserve should be quantified with the help of sensitivity analysis, possibly in conjunction with UCLA/BFP.

- Attachments: Chart 1 - 1997 LRP Forecast Growth Rates of Proposition A&C Net Revenues
Chart 2 - Annual Changes in Proposition A&C Net Revenues
Chart 3 - Proposition A&C Actual Net Revenues
Chart 4 - Proposition A&C Revenue Comparison Based on Different Growth Rates

March 6, 1997

Chart 1
1997 LRP Forecast Growth Rates of
Proposition A and C Net Revenues

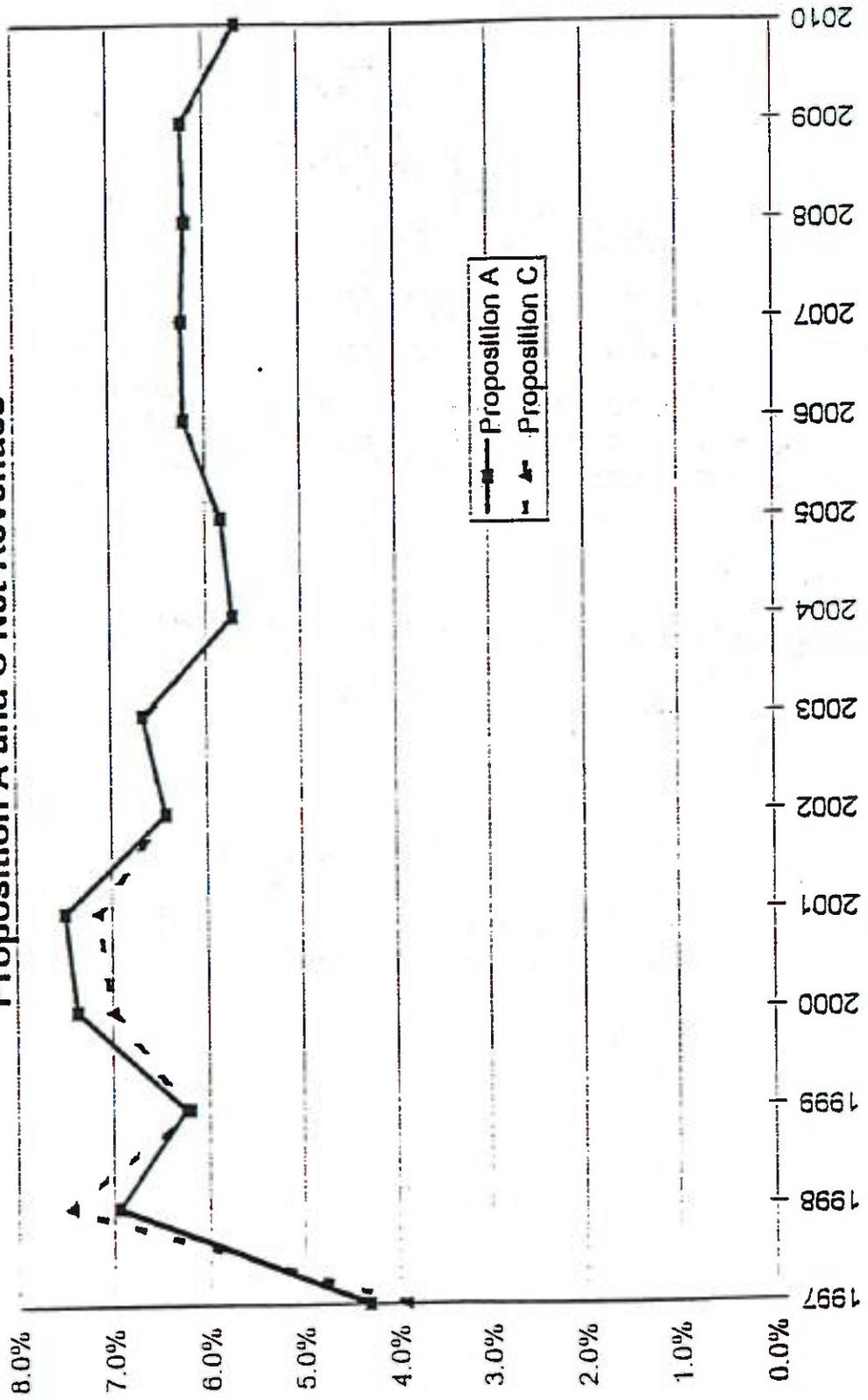


Chart 2
Annual Changes in Proposition A & C Net Revenues

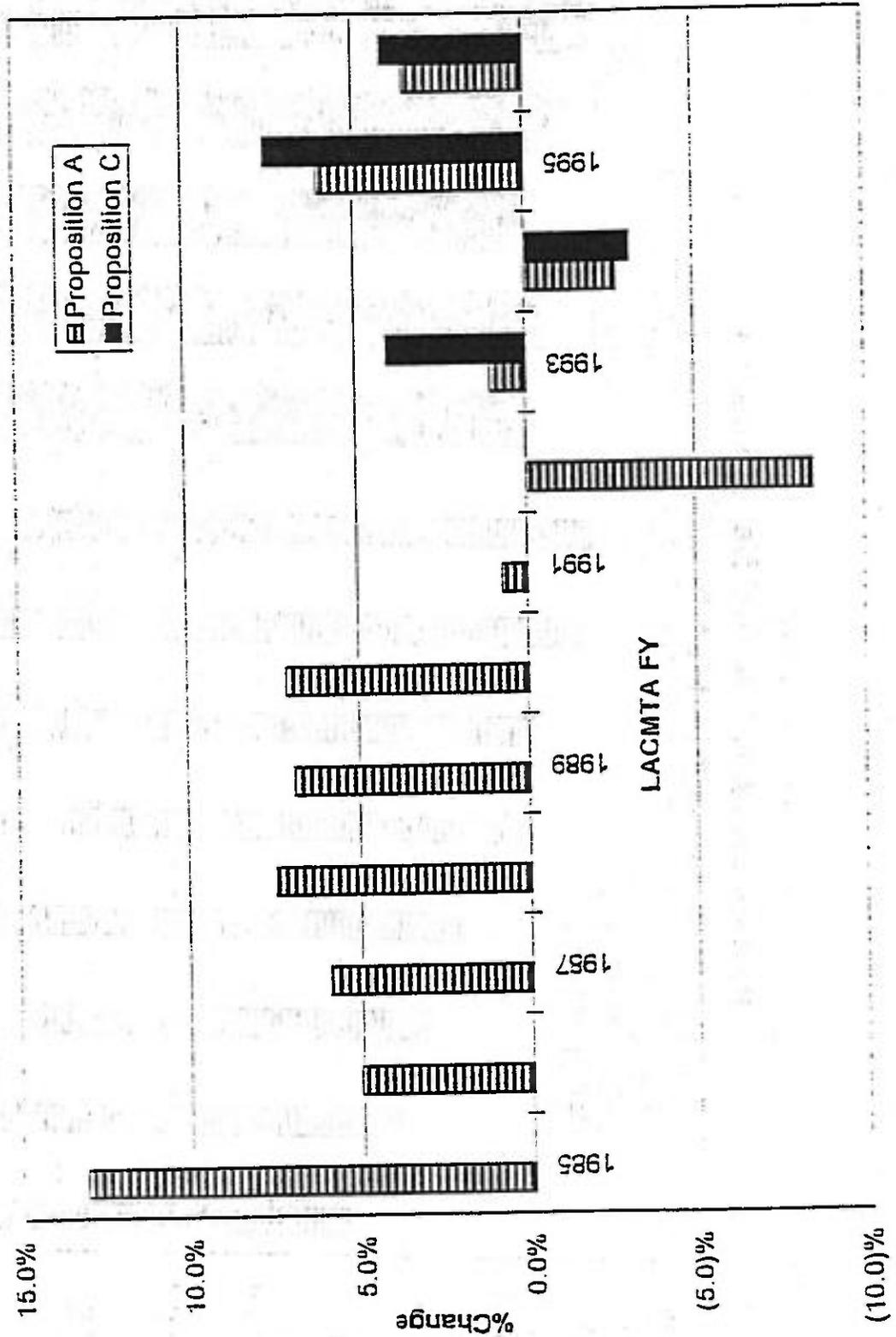


Chart 3
Proposition A & C Actual Net Revenues
(millions, LACMTA fiscal years)

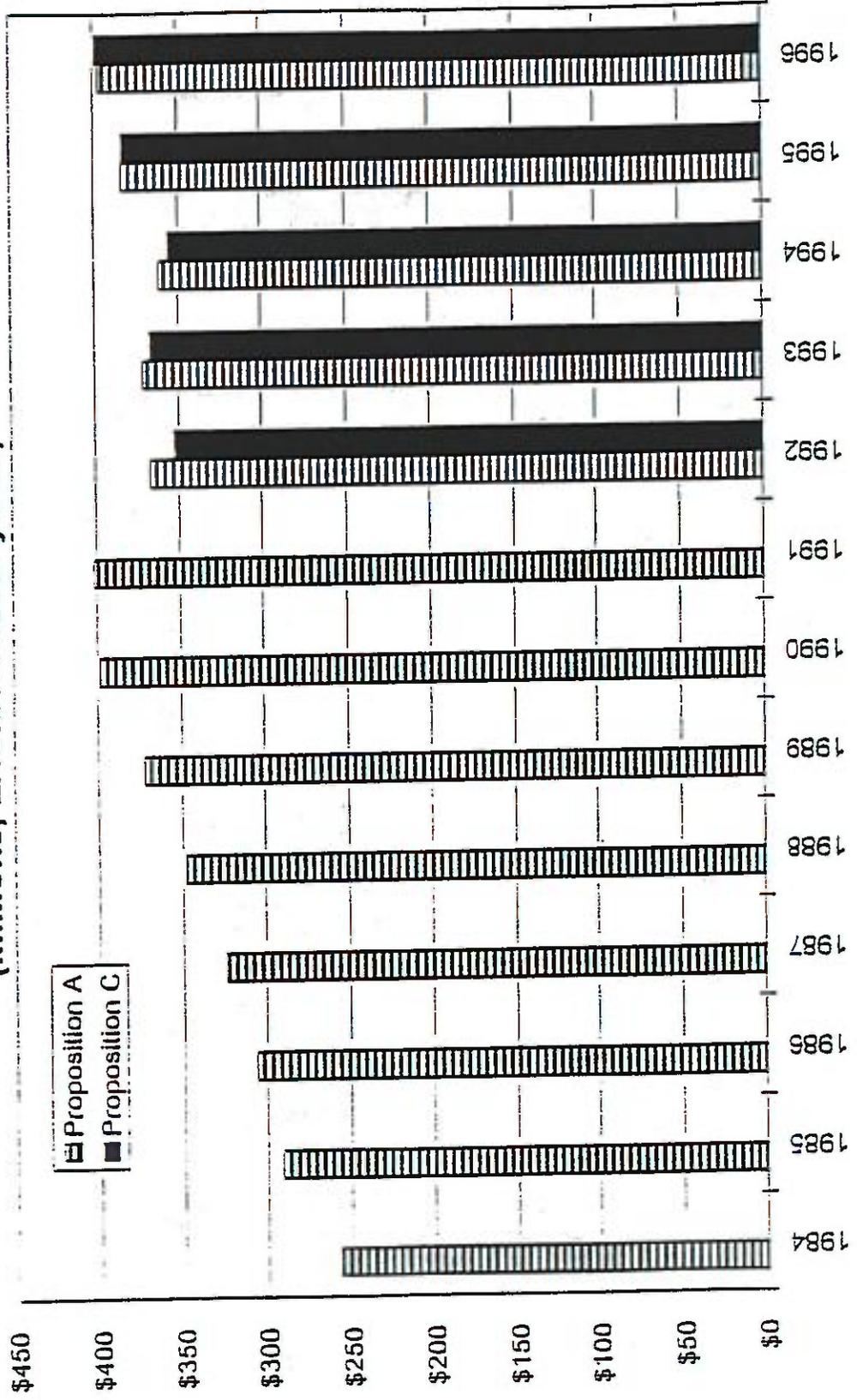
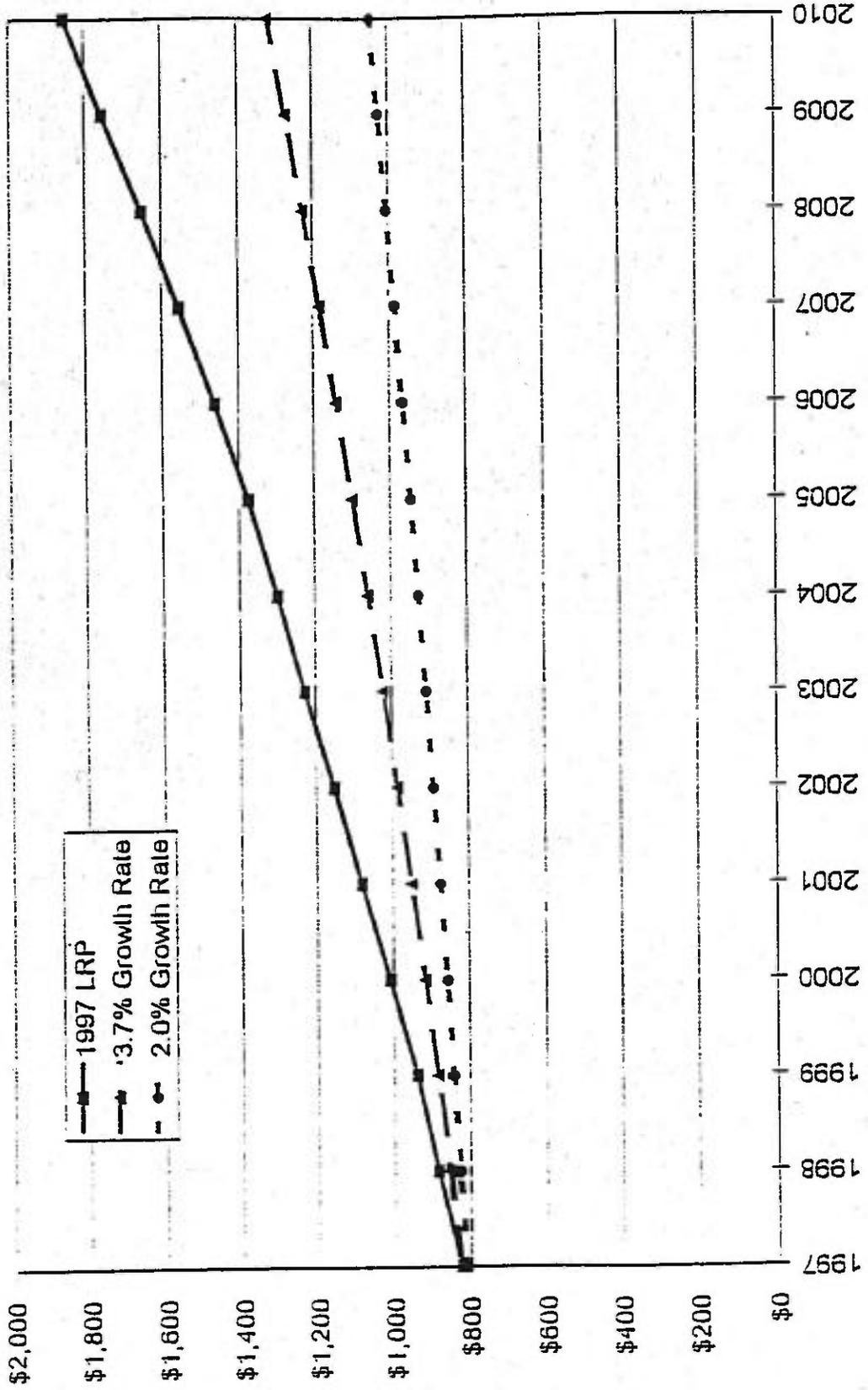
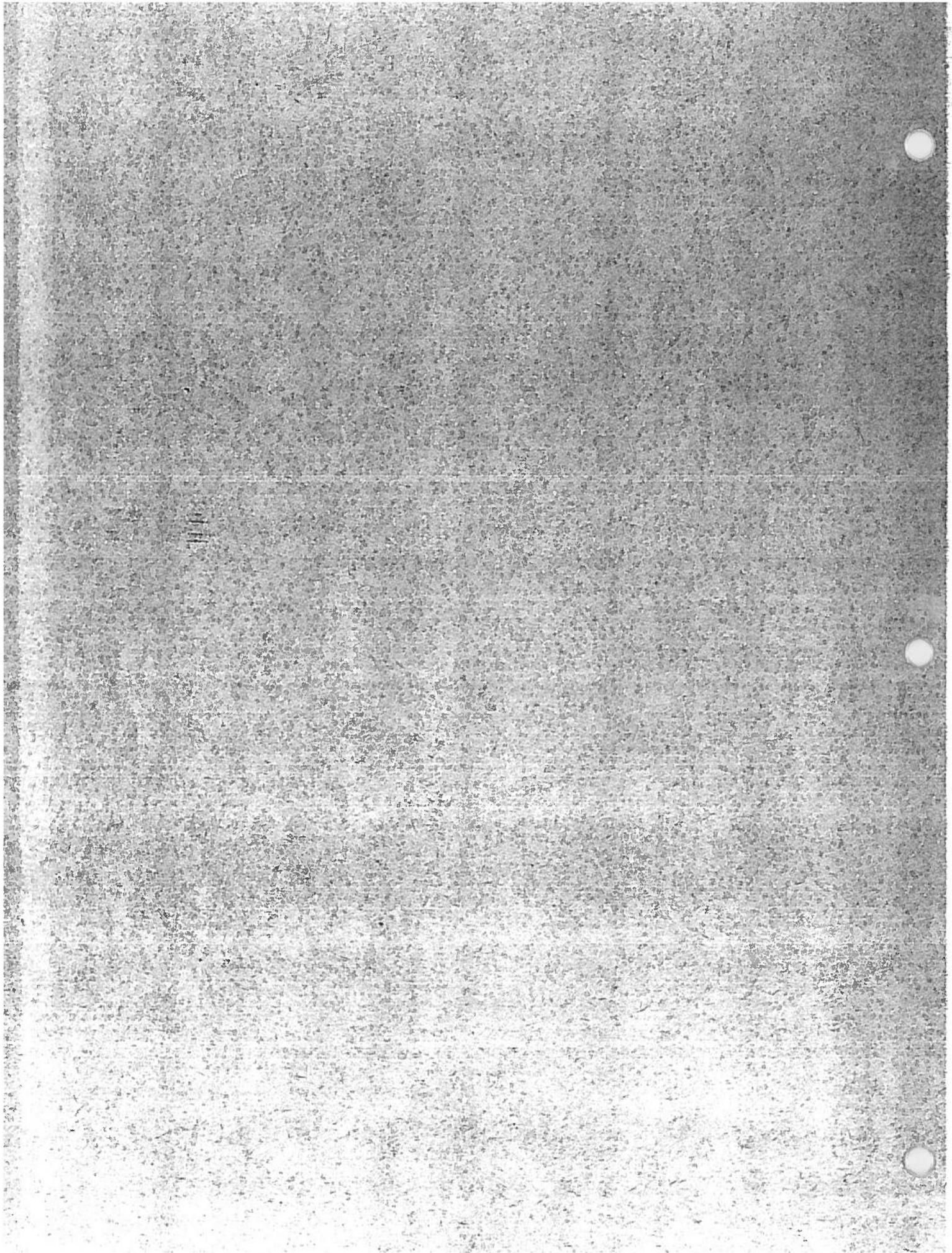


Chart 4
Proposition A&C Revenue Comparison
Based on Alternative Growth Rates (millions)





LOS ANGELES COUNTY MTA FINANCIAL CAPACITY ANALYSIS
TECHNICAL MEMORANDUM

March 6, 1997

RE: ANALYSIS OF LACMTA BONDING CAPACITY TO SUPPORT THE
RED LINE PROJECT

Summary

Based strictly on debt service coverage ratios, Los Angeles County MTA has ample bonding capacity (see Chart 1). However, once programmatic limitations and prudent borrowing policy considerations are factored in, MTA is currently maximizing its bonding capacity available for rail capital expenditures. The 1997 Long Range Plan (LRP) therefore provides no practical reserve capacity to buffer against adversities, such as operating cost overruns or shortfalls in anticipated sales tax revenues, without compromising MTA's debt policies. As a result, the availability of adequate and timely local funding for the Metro Red Line Project Segment 3 (the Project) is still subject to significant risk in the 1997 LRP.

It is MTA's policy to utilize Proposition A 35% revenues to fund rail projects to the maximum extent possible, while Proposition C 40% proceeds serve as a gap-filler. This policy derives from the scarcity of less restrictive revenue resources. However, as shown in Chart 1 there is no Prop A 35% bonding capacity available for rail capital projects until at least FY 2003.¹ As a result, Proposition C 40% revenues are being bonded to fund rail capital projects between FY 1997 and FY 2002 (see Chart 3). Chart 2 shows the debt service coverage ratios for both Proposition A and C bonds are at their minimums through FY 2010 after including the additional bonds issued in the 1997 LRP.²

The availability of the Prop C 40% bonding capacity, however, depends on MTA's ability to achieve cost savings from bus operations and on the accuracy of the 1997 LRP sales tax revenue forecast. The highest risk period in the 1997 LRP may well be over the first few years when the largest reductions in operating costs and the fastest increases in sales tax revenues are projected. The proposed Recovery Plan will be in jeopardy if the large volume of Prop C Discretionary debt shown over the next three years must be deferred due to unplanned operating deficits or failure to realize sales tax revenues projections.

¹ There is a two-year lag between bond issuance and the beginning of debt service due to capitalization of interest. This permits Prop A bonds to be issued in 2003 (see 1997 LRP Plan Assumptions section below).

² The minimum debt service coverage ratio for Proposition A 35% is 1.15 to revenues. For planning purposes, MTA uses a minimum debt service coverage ratio of 1.05 for Proposition C 40%, although this test differs from the ones contained in the bond covenants (see Additional Bond Tests section below).

Overview

The Full Funding Grant Agreement (FFGA) for the Project dated January 31, 1995 calls for MTA to:

- establish capital reserves to protect against the financial risks of unforeseen events;
- accord the Project first priority for use of the capital reserve amounts;
- adjust the Project's Local Share to the extent actual federal contributions vary from the amounts set forth in the FFGA.

The capital reserve is defined in Appendix 6A of the FFGA to consist of the MTA's bonding capacity relative to revenues from Propositions A and C sales taxes.³

While the FFGA capital reserve is traditionally oriented toward cost overruns, LACMTA's use of aggressive assumptions for sales taxes, fare revenues, operating costs and capital program commitments, as well as previous shortfalls in local contributions to MOS-3, point to the need for capital reserves to meet the agency's local share obligations.

The FFGA obligations for local contributions (including ISTEA) are \$424 million short (see Appendix 1) and the 1995 Long Range Plan commitments incorporated by reference into Section 12 of the FFGA are now in their second revision and represent a progressive erosion in LACMTA's delivery of non-federal funds to build the Project while continuing to operate and maintain the existing system. In no small part this erosion in local fiscal effort is due to LACMTA's failure to realize prior sales tax revenue projections.

LACMTA's bond financing for rail capital projects comes primarily from two sales tax revenue sources: Proposition A 35% (rail development program) and Proposition C 40% (discretionary) revenue bonds. Indeed, all of the Proposition A 35% and most of the Proposition C 40% revenue bond financing has been used finance rail capital projects.⁴ MTA's policy is to leverage only the funding streams allocated to rail capital to avoid borrowing for operating costs. While the agency could leverage revenues set aside to fund operations, technically, this would compromise LACMTA's commitment to operate and maintain the Project and the existing system, and would not represent prudent financial policy.

Official Statements (OS) for bonds backed by Proposition A and C revenues were reviewed along with other documentation to identify issues relating to the availability of

³ Proposition A and C each provide MTA with a 1/2 of 1% sales tax on sales within Los Angeles County.

⁴ Precise figures have not yet been provided by MTA Treasury.

Analysis of Bonding Capacity to Support the Red Line

the pledged capital reserves and to quantify bonding capacity based on the 1997 LRP. A review of the bond programs and related issues is presented.

Sources of Sales Tax Revenue Debt

The Ordinances enabling the Proposition A and C sales taxes provide that the proceeds be allocated to categories shown in Table 1 below.

Table 1

Proposition A		Proposition C	
Use	Amount	Use	Amount
Local Return Program	25%	Local Return Program	20%
Rail Development Program	35%	Freeway & Highway*	25%
Discretionary	40%	Commuter Rail	10%
Total	100%	Bus & Rail Security	5%
		Discretionary	40%
		Total	100%

*Transit-related

Notwithstanding the use categories above, MTA's sales tax revenue bonds are usually issued on a more general basis. There are, however, additional bond test restrictions for Proposition A bonds that relate to the above categories (see Additional Bond Tests section). The revenue base pledged to bondholders typically consists of the overall sales tax proceeds less the Local Allocation and less an administrative fee paid to the State Board of Equalization. In most cases, the purpose of each bond financing as set forth in the Official Statements is extremely general -- "to finance the cost of various transit projects" and bond-related costs.⁵ We have requested MTA provide information about the use of proceeds by debt issue and by project.

The "use of proceeds" section in the Official Statements generally shows that most of the bond proceeds are directed to a Construction Fund. There is little or no detail provided in OS documentation about Construction Fund sub-accounts relating to use categories or specific projects. This is true even for Proposition A Second Tier Obligations, which place limits on Non-rail project-related debt.⁶ The Bond trustee's role in ensuring that proceeds are used per the limitations set forth in the Ordinances is also unclear.

⁵ Bond issuance costs, interest capitalization fund and debt service reserve fund.

⁶ Grand Central Square Housing and Redevelopment Bonds can only be supported by Proposition A 40% discretionary funds (see Outstanding Bonds section below).

Proposition A Bond Proceeds Limitations

The California legislature historically imposed limitations on the use of Proposition A revenues and bond proceeds relative to the Red Line project (30% limit) and MOS-1 (maximum dollar amount). These constraints were both repealed effective January 1, 1995. While no longer in effect, these constraints are important in understanding the level of local support available to the Project over time. The Proposition A funding limitations were repealed approximately one month prior to the January 31, 1995 FFGA signing date and are referenced in FFGA Appendix 6A (Capital Reserves).

The Los Angeles County Transportation Commission Revenue Act required MTA to give priority to the construction of several transit projects authorized in the LACTC Ordinance No. 16 (Proposition A Ordinance) and limited the amount of Proposition A sales tax funds used to finance the Red Line Project.⁷ Specifically, Proposition A revenues were limited to funding 30% of MOS-1 and no more than \$300 million in Proposition A-backed bonds could be used to fund the Red Line in total. The original bonding limitation was \$100 million, but was amended to \$300 million in February, 1990. The apparent intention of these limitations was to ensure that non-Red Line rail projects (e.g., Blue and Green lines) received adequate funding.

Proposition C 40% Discretionary Fund Limitations

Proposition C's 40% Discretionary category is one of MTA's least restrictive funding sources. However, Ordinance No. 49 (Proposition C) contains the following important provision relative to MOS-2: "funds from this revenue source will not be used for capital improvements for the Metro Rail Project between Union Station and Hollywood." Since federal funds to complete MOS-2 have now been exhausted, the sources of funds to finish MOS-2 are restricted.

Bonds Outstanding

Over time MTA has issued several different series of bonds backed by Proposition A and C revenues with varying levels of seniority. As of June 30, 1996, the following General Fund debt amounts were outstanding:

⁷The System described in the Ordinance was proposed to serve the following areas: San Fernando Valley, West Los Angeles, South Center Los Angeles/Long Beach, South Bay/Harbor, Century Freeway Corridor, Santa Ana Freeway Corridor, and San Gabriel Valley.

Analysis of Bonding Capacity to Support the Red Line

Table 2

Issue	Outstanding @ 6/30/96 (\$mm)
Prop A	
First Tier Senior Bonds	\$1,406.3
First Tier Second Senior Obligation(a)	\$29.9
Second Tier Senior Bonds(b)	\$135.8
Commercial Paper(c)	<u>\$243.0</u>
Subtotal - Prop A(d)	\$1,815.0
Prop C	
First Senior Bonds	\$0.0
Second Senior Bonds	\$1,083.9
Commercial Paper(e)	<u>\$60.7</u>
Subtotal - Prop C(f)	\$1,144.7
Other(g)	
General Revenue Bonds (Gateway)	\$169.5
Certificates of Participation	<u>\$15.6</u>
Subtotal - Other	<u>\$185.1</u>
Total General Account	\$3,144.7

Notes:

- (a) Support Japanese leveraged lease payment obligations for light rail cars.
- (b) Include \$31.1 million in outstanding principal for Grand Central Square Multifamily Housing Bonds and Grand Central Square Qualified Redevelopment Bonds. MTA is obligated to make debt service payments, but only from the 40% discretionary share of Proposition A sales tax, with respect to the Redevelopment Bonds and, under certain circumstances, the Housing Bonds.
- (c) Maximum authorized amount is \$350 million. Amount shown is tax-exempt.
- (d) Includes \$1,317.0 million of refunding bonds. Does not include amounts due under the Proposition A Swap Agreement or other financings in which "spillover" Proposition A revenues (revenues available after debt service for Proposition A revenue bonds and commercial paper) are used to fund debt service directly or indirectly as additional credit support.
- (e) Maximum authorized amount is \$150 million. Amount shown is taxable.
- (f) Includes \$204.1 million of refunding bonds. Does not include amounts due under the Proposition C Swap Agreement or other financings in which spillover Proposition C revenues are used to fund debt service directly or indirectly as additional credit support.
- (g) In addition to the amounts shown, MTA also has \$226.3 million in Certificates of Participation issues outstanding which are included in the Proprietary Fund accounts and there is approximately \$159.9 million outstanding in Benefit Assessment District Revenue Bonds to support the Red Line.

Analysis of Bonding Capacity to Support the Red Line

Other Supported Obligations

In addition to the amounts shown above, as of June 30, 1996 Proposition A and C revenues available after payment of First and Second Tier obligations were used to back approximately \$337 million in additional debt as listed below.

- \$30 million of Revenue Anticipation Notes issued on February 28, 1996 (since repaid): Funded working capital needs until proceeds of the sales tax and other revenues were received. Payable from the Enterprise Fund and to the extent necessary also from Proposition A funds.
- \$19.3 million of Special Districts Association COPs for buses leased to the City of Los Angeles, the County of Los Angeles and the City of Santa Clarita through the California Special Districts Association. If any of the lessees fails to make their lease payments, the Authority would be obligated to make such payments from Proposition A "spillover funds" (funds available after payment of Proposition A revenue bonds and commercial paper).
- \$118.4 million of California Transit Finance Corporation COPs: Lease payments are supported by numerous revenue sources including spillover Proposition A and C revenues.
- \$169.5 million of General Revenue Bonds (Union Station Gateway Project): Payments are secured by a pledge of fare box revenues and fee and advertising revenues and spillover Proposition A and C sales tax revenues

Additional Bond Tests

The Bond Indentures for Proposition A and C bonds establish limits on the amount of additional bonds that can be issued based on a ratio of debt service to sales tax receipts. These limits vary by the seniority of particular issues and are different for Proposition A and C borrowings. The additional bond tests currently in effect are summarized below.³

³ The precise definitions of Maximum Annual Debt Service set forth in the bond indentures are complicated and differ by issue type. The descriptions herein are summaries only and the full text of the indentures should be reviewed for more detailed assessments. Additional coverage tests apply to commercial paper issues and swaps.

Analysis of Bonding Capacity to Support the Red Line

Proposition A:

- 35% of the Annual Tax Collections⁹ \geq 115% of Maximum Annual Debt Service for all First Tier Senior Lien Bonds
(Note: The above test relates to the rail development program use category)
- 75% of the Annual Tax Collections¹⁰ \geq 125% of Total Maximum Annual Debt Service for all Outstanding Debt
(Note: The above test relates to the combination of discretionary/non-rail and rail development program use categories)
- 40% of the Annual Tax Collections¹⁰ \geq 125% of Total Maximum Annual Debt Service for all Non-rail Debt which is Outstanding Debt

Proposition C:

- Annual Pledged Revenues¹¹ \geq 400% of Maximum Annual First Senior Debt Service
(Note: There are currently no Proposition C First Senior bonds outstanding)
- Annual Pledged Revenues¹¹ \geq 130% of Maximum Annual Debt Service for all Bonds and Debt on Parity with Second Senior Bonds

There do not appear to be any programmatic additional bond test restrictions for Proposition C debt.

1997 LRP Plan Assumptions

MTA assumes that all additional bonds issued in the 1997 LRP are senior lien bonds. For planning purposes, the debt service coverage ratios are modified somewhat to account for the lack of monthly data and are applied only against rail capital revenues. Moreover, in the 1997 LRP MTA also imposes an internal administrative charge of 5.0% and 1.5% on Proposition A and C revenues, respectively, thereby reducing coverage proportionately. Finally, new bonds are assumed to capitalize interest for the first two years, thereby delaying the effect of new bond issuance on short term cash flows available to cover

⁹ "Annual Tax Receipts" is defined to be Proposition A sale tax revenues collected for any 12 consecutive months out of the 18 consecutive months immediately preceding the issuance of additional bonds.

¹⁰ "Annual Tax Receipts" is defined to be Proposition A sale tax revenues collected for any 12 consecutive months out of the 15 consecutive months immediately preceding the issuance of additional bonds.

¹¹ "Annual Pledged Revenues" is defined to be "Pledged Revenues" collected for any 12 consecutive months out of the 18 consecutive months immediately preceding the issuance of additional bonds. Pledge Revenues, in turn, are defined to equal gross sales tax receipts less the Local Allotment and less an administrative fee due to the State Board of Equalization.

Analysis of Bonding Capacity to Support the Red Line

operating and capital expenses. Thus the debt service requirements of new bond issues do not compete immediately for cash resources.

The 1997 LRP applied a coverage ratio of 115% for Proposition A 35% rail capital bonds. For Proposition C 40% rail capital bonds, however, the 1997 LRP applies a debt service coverage ratio of 1.05, which differs from the ratios shown above. The bonded amounts in the 1997 LRP are approximately one half or less of total Proposition C 40% revenues during the plan horizon due to the need to fund operations and existing debt service. Operating funding and increasing debt service needs therefore constrain the agency's bonding capacity in the LRP model.

Chart 4 shows 1997 LRP debt levels rising steadily between FY 1997 and 2010 to support rail capital expenditures, although debt issuance slows towards the end of the period. However, Chart 5 shows the proportion of Proposition A and C debt relative to MTA (non-Local Return allotment) sales tax revenues begins to drop slowly after peaking in FY 1999, as strong Proposition A and C revenue growth continues. This trend reflects the gradual drop in Proposition A 35% and C 40% combined spending on transit operations and debt service relative to revenues (see Chart 6).

A comparison of Proposition A 35% and C 40% financing costs relative to revenues in Chart 7 shows approximately a 10% rise between FY 1997 and 2001 and then a slow tapering. The increase is driven by higher Proposition C 40% debt service requirements through FY 2004, reflecting bond issuance activity between FY 1997 and 2002. In contrast, Proposition A 35% debt generally declines throughout the period in spite of bond issuances between FY 2003 and 2010. However, the higher coverage ratio for Proposition A 35% debt applied in the 1997 LRP is more restrictive relative to the one for Proposition C 40%, so additional bonding capacity does not increase in proportion to the combined drop in debt service relative to revenue.

Combined transit operations spending relative to Proposition A 35% and C 40% revenues drops sharply in the first two years and then remains level (see Chart 8), reflecting the demand for rail capital spending. This drop, which is based on realizing planned operating efficiencies, is critical, as it provides the bonding capacity needed for the rail capital program.

The merged Proposition A 35% and C 40% trend masks differences between the two relative to spending on transit operations. Proposition C 40% operating spending drops sharply in the early years (based on assumed bus operating efficiencies) allowing for heavy rail operations spending and bonding. This drop continues at a more moderate pace as spending for rail operations is phased out over time. In contrast, Proposition A

Analysis of Bonding Capacity to Support the Red Line

operations spending starts out low due to heavy existing debt service requirements and gradually increases as higher revenues ease this burden.

Other Issues

Description of MTA's Funding Commitment to Red Line in Latest OS

The section describing MTA's Long Range Plan in the OS for the latest Proposition A revenue bond issue¹² contains language suggesting that the delivery of Red Line segments 2 and 3 is dependent on the timing and amount of federal contributions. This is contrary to the language of the Full Funding Grant Agreement, which requires the grantee to maintain the schedule and complete the Project even if there is a delay in federal funds. Specifically, the Official Statement states:

"The Long Range Plan assumes that approximately 50% of the funding for the Metro Redline Segments 2 and 3 will come from federal contributions to the project, as consistent with the Full Funding Grant Agreement. The assumption is carried forward for the funding of three future rail lines: San Fernando Valley East/West and the Eastern and Western extensions of the Metro Red Line. If the federal contribution, either on an annual or a total basis, is lower than anticipated, the timing and delivery of the above projects will be impacted."

To our knowledge, this language was not included in OS's for other previous borrowings and may therefore represent a change in policy and/or disclosure level.

Sales Tax Revenue Forecast

The discussion above assumes realization of LACMTA's sales tax revenue forecast. Appendix 4 contains a review of the sales tax projections. Shortfalls in the sales tax revenues have a leveraged impact because they are used first to fund operations and existing debt service. The remainder is leveraged through the issuance of debt. Thus, to the extent the remainder shrinks or disappears altogether, further Project delays would follow, effectively replaying the current situation. This is an important factor in the need for the Recovery Plan to establish a capital reserve, as LACMTA's 30- and 20-year plans have had to respond to shortfalls in sales tax revenues. Heavy programming against sales tax forecasts have historically left little or no allowance for normal variations in economic conditions.

¹² Proposition A First and Second Tier Senior Sales Tax Revenue Bonds Series 1996-A and Proposition A Second Tier Sales Tax Revenue Refunding Bonds Series 1996, both dated July 1, 1996.

Analysis of Bonding Capacity to Support the Red Line

Attachments:

- Chart 1 - MTA Rail Capital Bond Coverage Ratios Assuming No Additional Debt
- Chart 2 - MTA Rail Capital Bond Coverage Ratios Including Additional Debt
- Chart 3 - Gross Proceeds from Bond Issuance - Prop A 35% & Prop C 40%
- Chart 4 - Prop A&C Debt vs. Prop A&C Revenues
- Chart 5 - Ratio of Prop A&C Debt Outstanding to MTA Prop A&C Revenue
- Chart 6 - Transit Ops and Debt Service as %ages of Prop A35% & C40% Revenues
- Chart 7 - Prop A35% & C40% Debt Service as %ages of Revenues
- Chart 8 - Prop A35% & C40% Transit Ops Spending as %ages of Revenues

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