Metro

Finance, Administration and Oversight Committee

Information Item II-B

September 27, 2007

Fare Policy and Proposal Consideration

Washington Metropolitan Area Transportation Authority
Board Action/Information Summary

☐ Action ☒ Information	MEAD Number:	Resolution: ☐ Yes ☒ No

PURPOSE

To present the Board of Directors with fare policy information and proposals.

DESCRIPTION

The FY09 budget forecasts a funding need of $109 million. Two primary fare policy decisions should be discussed: 1) how to increase fares and 2) when to increase fares. Four different fare proposals are contained in the attached presentation with each proposal generating $109 million.

NEXT STEPS

To proceed, the Board of Directors will review and consider a fare policy.

Fare Policy and Proposal Consideration

Presented to the Board of Directors:

Finance, Administration and Oversight Committee

September 27, 2007

Consideration of Fare Policy

Two primary fare policy decisions:

I. How to increase fares:

    a. Proportional fare changes

    b. Market-based fare changes

II. When to increase fares:

    a. As needed (budgetary response)

    b. Calendar (annual, semi, etc)

    c. Indexed (ratios, economic indicators)

Consideration of Fare Policy

I. How to increase fares:

Two policy directions to use when setting fares -

a. Proportional fare increases

b. Market-based fare increases

- **These policy directions tend to conflict with each other**

- **It is possible to blend some aspects of each**

- **Each policy direction has pros and cons**

- **There is no "right way" or "wrong way"**

Consideration of Fare Policy

Ia. Proportional fare increases

Description All fare elements are increased at the same percentage rate regardless of customer willingness or ability to pay

Example $1.35 rail fare increases 19% to $1.60
$1.25 bus fare increases 20% to $1.50

Pros
- Very easy for customers to understand
- Minimizes barriers to entry (complicated fares cause customers to seek other travel options)
- Maintains current equity (city/suburban) (bus/rail)

Cons
- Ridership impact tends to be greatest on low income
- Generates less revenue (more subsidy) per rider
- Maximizes ridership losses

Consideration of Fare Policy

Ib. Market-based fare increases

Description Customer willingness or ability to pay determines which fares change and by how much

Customers who do not want to pay the increase are replaced by new customers who will pay

Example Peak/Off-peak rail fares

Pros
- Generates less subsidy (more revenue) per rider
- Minimizes ridership losses
- Maximizes use of limited bus and rail system capacity

Cons
- Complicated to explain, except point-to-point fares
- Creates shifting bus/rail/city/suburban

Consideration of Fare Policy

Other variable is "elasticity"

- Elasticity is a measure that determine how many riders stop taking transit when fares are increased

- Simple, valid economic theory, but nearly impossible to measure in real life

- Simpson-Curtin rule of thumb:
  10 percent fare increase will cause 3 percent of riders to leave transit

- Metro's experience has been nowhere near this dramatic

- Current metro fare models assume much less elasticity and varies the elasticity by day, time of day, and distance traveled

- It's still just an assumption

$$\text{elasticity} = \frac{\% \text{ change in ridership}}{\% \text{ change in fare}}$$

$$\text{elasticity of } .3 = \frac{\% \text{ change in ridership}}{10.00\%}$$

% change in ridership = .3 x .10

% change in ridership = 3.00%

Elasticity of .3 means a 10% change in fares causes 3% change in ridership

Consideration of Fare Policy

II. When to increase fares:

    a. As needed (budgetary response)

    b. Calendar (annual, semi, etc)

    c. Indexed (ratios, economic indicators)

Consideration of Fare Policy

II. When to increase fares:

a. As needed (budgetary response)

- ➢ Seems to be transit practice nationwide

- ➢ Metro has long history of multi-year gaps, then large increases

- ➢ Often a result of some economic downturn

- ➢ Pressure to increase fares just when customers can least afford it

- ➢ Limited time to discuss/debate policy implications

Consideration of Fare Policy

II. When to increase fares:

b. Calendar based

➢ **Very easy for customer planning and budgeting**

➢ **Would result in smaller, repeating fare increases**

➢ **Not tied to economic ups and downs**

➢ **Process driven rather than policy or issue driven**

➢ **Can be annual, semi-annual, or more often**

➢ **Shorter time frames increase administrative costs**

Consideration of Fare Policy

II. When to increase fares:

c. **Index triggered**

➤ **Pre-set policy determines timing (optionally, amount)**

➤ **Multiple index methods can be combined to balance various policy considerations**

   Examples of index methods:
   - **Constant subsidy growth index**
   - **Economic growth index**
   - **Constant cost recovery index**

Consideration of Fare Policy

Subsidy growth index

➤ Has guided metro budget and fare policy
   in recent years

➤ Annual "Board Guidance" with targeted subsidy
   increase ceilings

➤ Blue Ribbon panel recommendations
   Brookings institute report
   GAO recommendations

➤ Good at linking Metro's budget to jurisdictional
   budgets

➤ Least common denominator budgeting (Jurisdiction
   that can afford the least controls the process)

Consideration of Fare Policy

Economic growth index

➢ CPI *Consumer Price Index* is a common measure of inflation used to judge budget growth

➢ CPI measures household inflation – not transit

➢ Metro cost growth more akin to airlines, trucking, shipping – Labor intensive, energy dependent

➢ Household market basket vs. transportation market basket

➢ Metro Transportation Index is estimated at twice CPI Still being developed

➢ Cannot account for budget impact such as one-time-only actions

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Consideration of Fare Policy

Constant cost-recovery index

➢ Cost recovery is ratio of revenue/costs
  (i.e., How much of the budget is paid for by revenue
   versus jurisdictional assistance)

➢ FY08 cost recovery is 57 percent
   57 percent of the budget is funded by revenue
     (fares, advertising, etc)
   43 percent is funded by local taxes
     (property tax, gasoline taxes, etc)

➢ Ratio has remained relatively constant over many years

➢ Balance of who pays for Metro remains unchanged

Consideration of Fare Policy

Combined index example:

Economic index (Metro transportation index)
sets guideline on annual budgeted cost growth

and

Constant-cost recovery index determines
when a fare increase is implemented to maintain
public policy balance of who pays (taxpayer/rider)

Consideration of Fare Policy

Matrix of Fare Increase Policy Choices:

		How	
		Proportional Fare Increase	Market Based Fare Increase
When	Budgetary		
	Calendar		
	Indexed		

Consideration of Fare Policy

Recommendations

1. Implement a proportional fare increase

2. Adopt a policy of indexing future fare increases using the Metro transportation index and constant cost recovery index

3. Implement as soon as possible to allow for smallest possible fare increase

Consideration of Fare Proposals

- **Four different fare proposals**

- **Each proposal generates $109 million**

- **Variables – Implementation date and ridership loss assumptions**

Proposal A
January 2008 (18 months)
Minimal Elasticity
Smallest Fare Increase

Proposal B
January 2008 (18 months)
Traditional Elasticity
2nd Smallest

Proposal C
July 2008 (12 months)
Minimal Elasticity
3rd smallest

Proposal D
July 2008 (12 months)
Traditional Elasticity
Largest Fare Increase

			Current Fare	Fare Increase proposals:			
				A	B	C	D
Rail	Peak	Boarding	$1.35	$0.20 15%	$0.25 19%	$0.35 26%	$0.40 30%
		Max Fare	$3.90	$0.60 15%	$0.60 15%	$1.10 28%	$1.25 32%
	Off-peak	Boarding	$1.35	$0.20 15%	$0.25 19%	$0.35 26%	$0.35 26%
		Max Fare	$2.35	$0.20 9%	$0.25 11%	$0.35 15%	$0.35 15%
Bus	Regular	Boarding	$1.25	$0.25 20%	$0.25 20%	$0.25 20%	$0.25 20%
	Express	Boarding	$3.00	$0.60 20%	$0.60 20%	$0.60 20%	$0.60 20%
	Passes	1-Day	$3.00	eliminate	eliminate	eliminate	eliminate
		Weekly	$11.00	$2.00 18%	$2.00 18%	$2.00 18%	$2.00 18%
Parking (most common)	Daily		$3.50	$0.50 14%	$0.50 14%	$0.50 14%	$0.50 14%
Assumed Ridership Loss (million annual trips)				(17) -2.3%	(22) -3.6%	(18) -3.7%	(22) -5.2%

Appendix

Budget Unknowns:

- 6.5 percent subsidy increase is not guaranteed
  Jurisdictional budgets have not yet been developed

- Many large variables in Metro's budget remain unknown
  Labor negotiations, claims cost, energy inflation, etc.

- Regional Issues such as the US Military Base Realignment
  and Closings

- Economic downturns in housing and property value

Appendix

Consideration of Fare Proposals

Proposal A
Implementation: January 2008
Minimal Ridership Loss Assumption

Proposal A = $109.991 Million

Selected Fares:			Old Fare	New Fare	Fare Change	
Rail	Peak	Boarding	$1.35	$1.55	$0.20	15%
		Max Fare	$3.90	$4.50	$0.60	15%
	Off-peak	Boarding	$1.35	$1.55	$0.20	15%
		Max Fare	$2.35	$2.55	$0.20	9%
Bus	Regular	Boarding	$1.25	$1.50	$0.25	20%
	Express	Boarding	$3.00	$3.60	$0.60	20%
	Passes	1-Day	$3.00	eliminate		
		Weekly	$11.00	$13.00	$2.00	18%
Parking		Daily	$varies	$varies	$0.50	varies

Consideration of Fare Proposals

Proposal B
Implementation: January 2008
Traditional Ridership Loss Assumption

Proposal B = $109.205 Million			Old	New		
Selected Fares:			Fare	Fare	Fare Change	
Rail	Peak	Boarding	$1.35	$1.60	$0.25	19%
		Max Fare	$3.90	$4.50	$0.60	15%
	Off-peak	Boarding	$1.35	$1.60	$0.25	19%
		Max Fare	$2.35	$2.60	$0.25	11%
Bus	Regular	Boarding	$1.25	$1.50	$0.25	20%
	Express	Boarding	$3.00	$3.60	$0.60	20%
	Passes	1-Day	$3.00	eliminate		
		Weekly	$11.00	$13.00	$2.00	18%
Parking		Daily	$varies	$varies	$0.50	varies

Consideration of Fare Proposals

Proposal C
Implementation: July 2008
Minimal Ridership Loss Assumption

Proposal C = $109.058 Million						
Selected Fares:			Old Fare	New Fare	Fare Change	
Rail	Peak	Boarding	$1.35	$1.70	$0.35	26%
		Max Fare	$3.90	$5.00	$1.10	28%
	Off-peak	Boarding	$1.35	$1.70	$0.35	26%
		Max Fare	$2.35	$2.70	$0.35	15%
Bus	Regular	Boarding	$1.25	$1.50	$0.25	20%
	Express	Boarding	$3.00	$3.60	$0.60	20%
	Passes	1-Day	$3.00	eliminate		
		Weekly	$11.00	$13.00	$2.00	18%
Parking		Daily	$varies	$varies	$0.50	varies

Consideration of Fare Proposals

Proposal D
Implementation: July 2008
Traditional Ridership Loss Assumption

Proposal D = $108.942 Million			Old Fare	New Fare	Fare Change	
Selected Fares:						
Rail	Peak	Boarding	$1.35	$1.75	$0.40	30%
		Max Fare	$3.90	$5.15	$1.25	32%
	Off-peak	Boarding	$1.35	$1.70	$0.35	26%
		Max Fare	$2.35	$2.70	$0.35	15%
Bus	Regular	Boarding	$1.25	$1.50	$0.25	20%
	Express	Boarding	$3.00	$3.60	$0.60	20%
	Passes	1-Day	$3.00	eliminate		
		Weekly	$11.00	$13.00	$2.00	18%
Parking		Daily	$varies	$varies	$0.50	varies