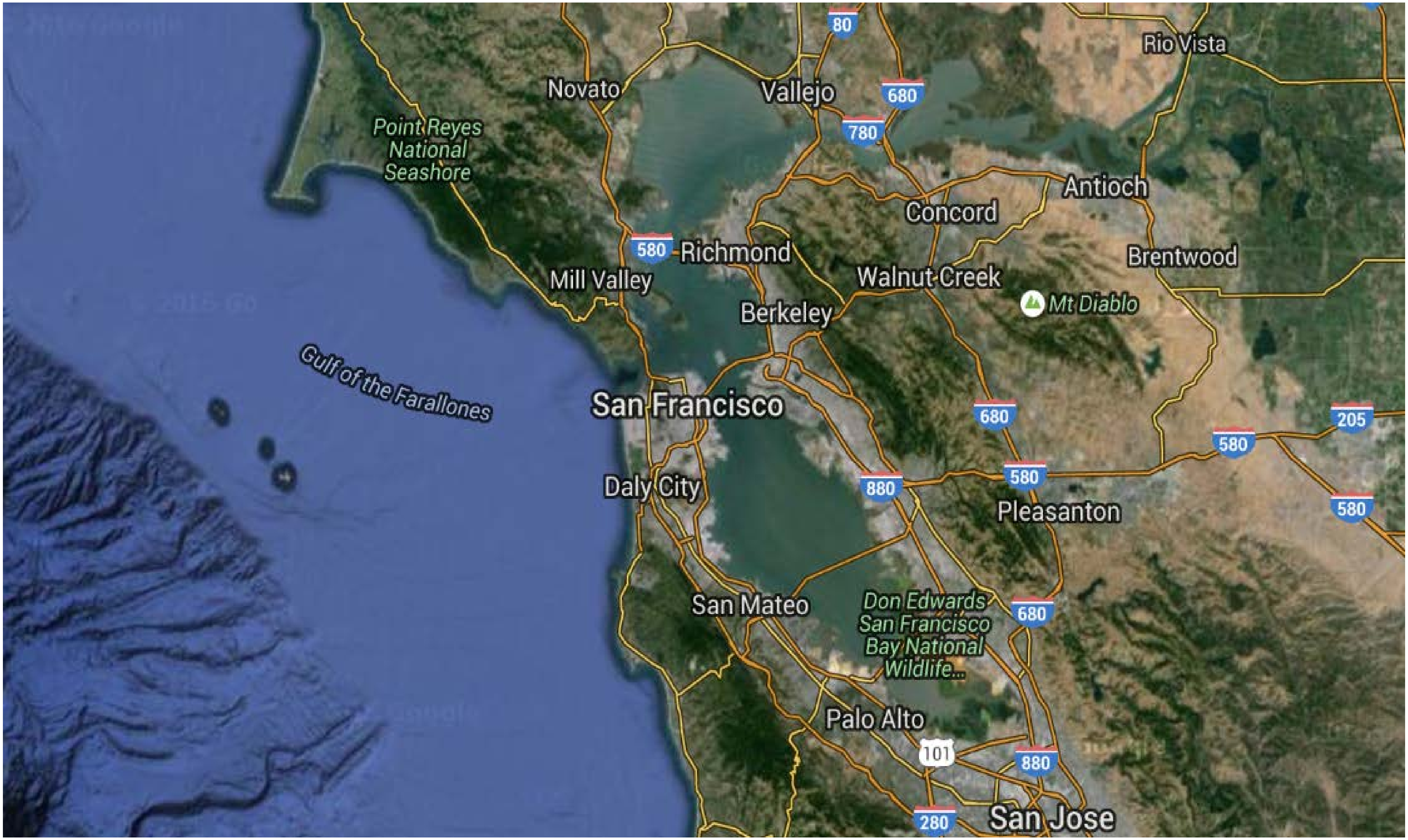
Bay Area Toll Authority



September 28, 2016

Executive Summary

The 2016-2017 Plan of Finance is focused on three significant initiatives

1 Strategically Fund Regional Projects

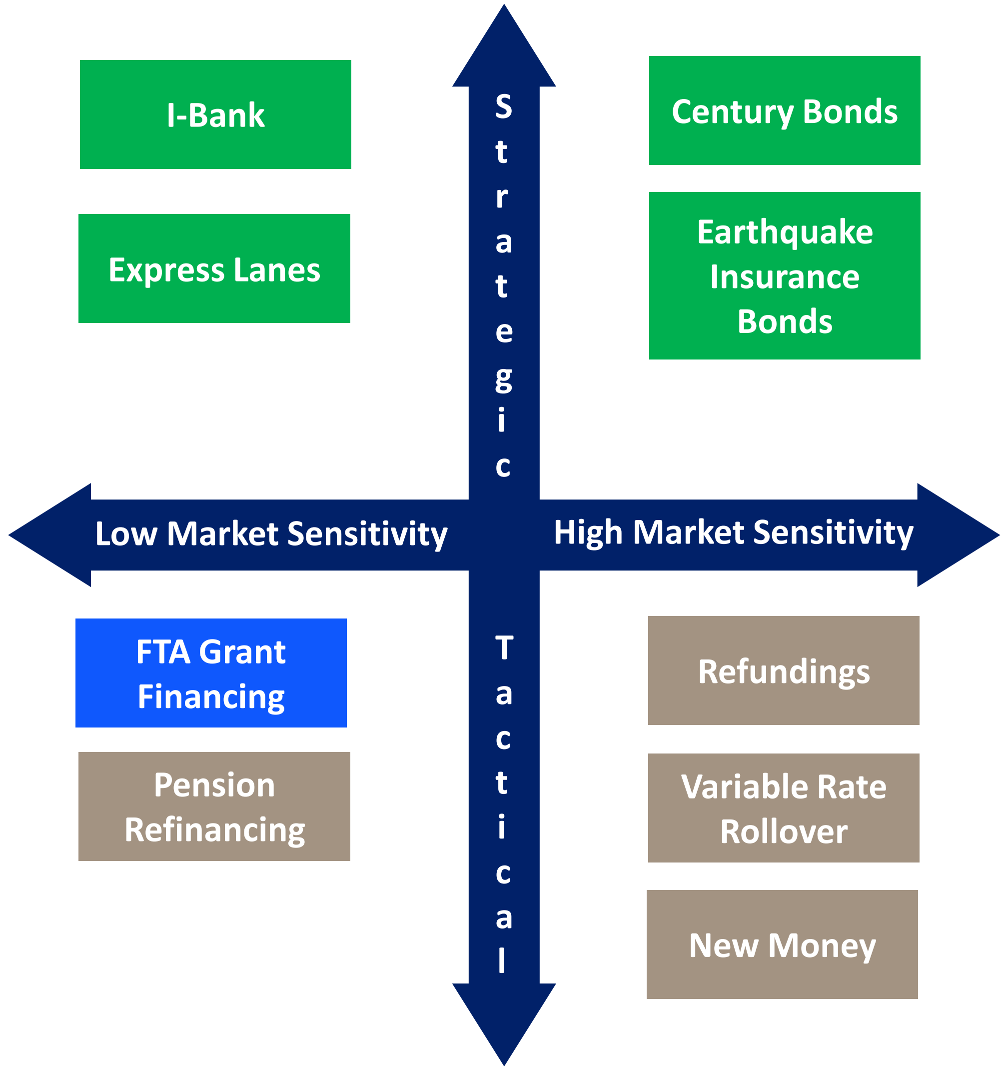
- Creation of a regional infrastructure bank
- Replace current BATA reserves
  - Century Bonds
  - Earthquake Insurance Bonds (EIBs)
- Repurpose current reserves to fund I-Bank

2 Improve Project Delivery

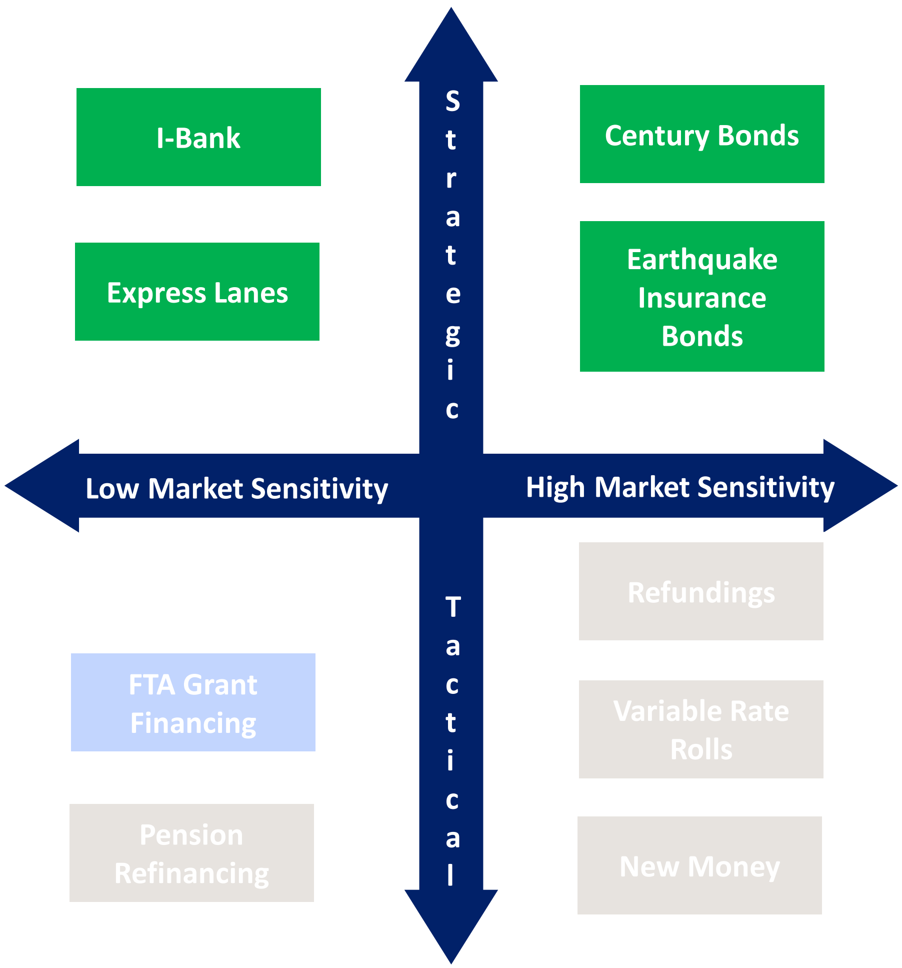
- Financing against FTA revenue

3 Reduce Debt Service Costs

- Refund BATA bonds meeting 3% savings threshold
- Manage BATA's variable rate portfolio
- Refinance MTC's outstanding pension and OPEB obligations to generate cost savings

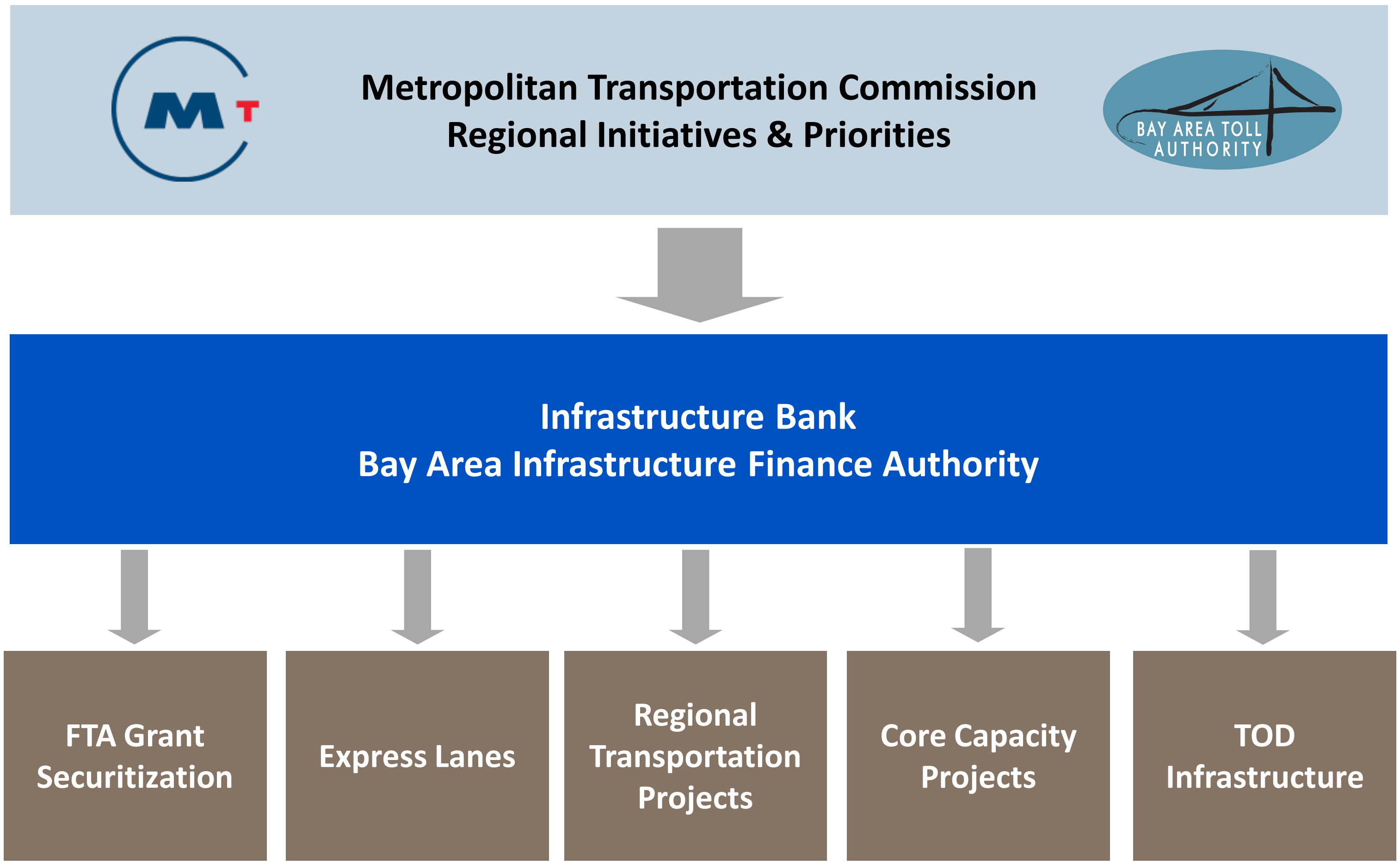


Strategically Fund Regional Projects



Regional Infrastructure Bank

A successfully funded I-Bank will open possibilities to expand transportation initiatives beyond anything BATA and MTC can do separately *



*** BATA contribution limited to eligible toll projects**

Infrastructure Bank: Funding Concept

Capital markets now provide financial products that can replace BATA's self-insurance cash

- BATA holds $1 billion of total program reserves – the "Hard-Deck"
  - $580 million is a Self-Insurance Reserve for catastrophic events
- Earthquake Insurance Bonds ("EIBs") can provide insurance coverage for seismic events
- Century Bonds can provide flexible and cost effective means to fund reserves

Current BATA Hard-Deck

O&M Reserve	$150 million
Extraordinary Loss Reserve:	50 million
Rehab Reserve:	120 million
Variable Rate Risk Reserve:	100 million
Self-Insurance Reserve:	
▪ Cash	580 million
Total:	**$1,000 million**

$500 million Capital Contribution

Infrastructure Bank

Earthquake Insurance Bonds

Century Bonds

Revised Hard-Deck Make-Up

O&M Reserve	$150 million
Extraordinary Loss Reserve:	50 million
Rehab Reserve:	120 million
Variable Rate Risk Reserve:	100 million
Self-Insurance Reserve:	
▪ Remaining Cash	80 million
▪ EIBs	250 million
▪ Century Bonds	250 million
Total:	**$1,000 million**

Allows BATA to maintain its current $1 billion minimum reserves, while freeing up resources to provide I-Bank funding

Earthquake Insurance

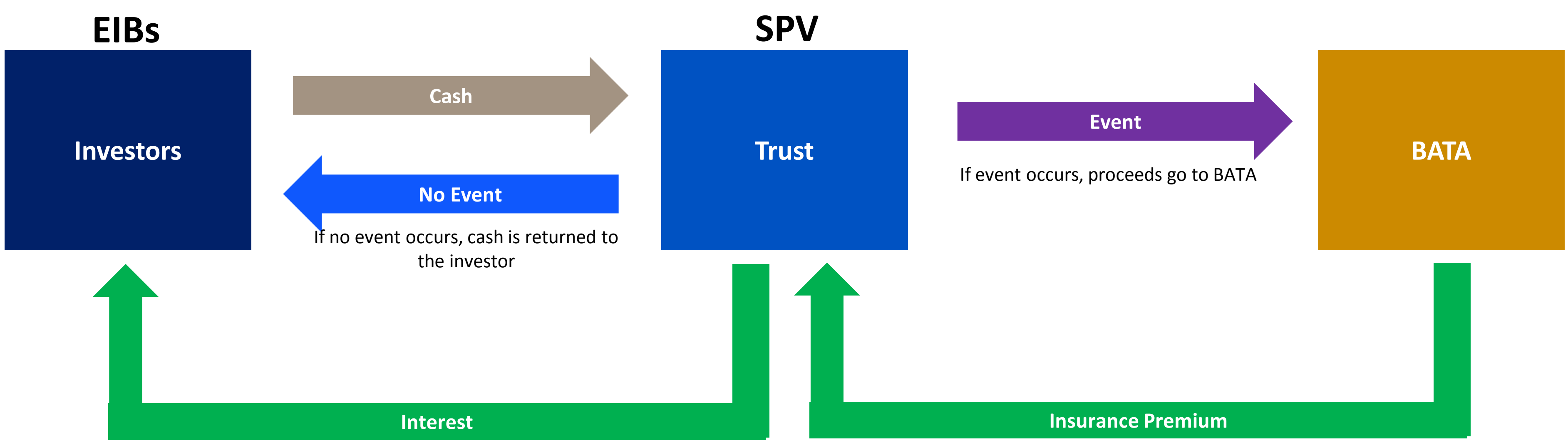
Earthquake Insurance Bonds (“EIBs”)

Program

- Fully collaterized seismic insurance policy
  - Pays out directly after seismic event
  - No insurance counter-party/broker
- Collateral held in independent trust
- BATA pays annual premium for coverage
- Structured to allow fixed payment
  - Payment based on specified event
  - No need to prove damage
- Modeling Firm
  - Risk evaluation
  - Parametric triggers
- Reinsurance firm (SPV)
  - Issues EIBs
  - Administers trust
- Trust
  - Holds investors’ cash
  - Liquidates trust

Risks

- Renewal – no guarantee market exists at maturity
- Event risk – event is below seismic triggers resulting in a no pay out situation
- Damage level – damage may exceed actual payment
- BATA would be the first California transit agency to pursue a earthquake insurance bond



Trigger Structure Alternatives for BATA

- Earthquake Insurance Bonds generally utilize either indemnity or parametric triggers
  - Indemnity triggers: Mostly used by insurance companies that payoff based on demonstrated loss
  - Parametric triggers: Typically non-insurer sponsors (corporate and government entities) that payoff after meeting specified triggers for specified events (earthquake, flood, wind)
  - A parametric trigger allows for rapid recovery
- A risk modeling firm will be retained to assess the risk to BATA's bridges and related exposures, and provide input in the design of a trigger structure to efficiently protect BATA

Parametric Trigger

- Triggered when an event occurs that meets certain earthquake ground shaking intensity parameters as reported by USGS
  - Potential difference (positive or negative) could exist between BATA's actual losses and the recovery from the transaction
- Payout can be utilized to cover physical damage and business interruption losses
- Generally 3 – 5 year terms

Indemnity Trigger

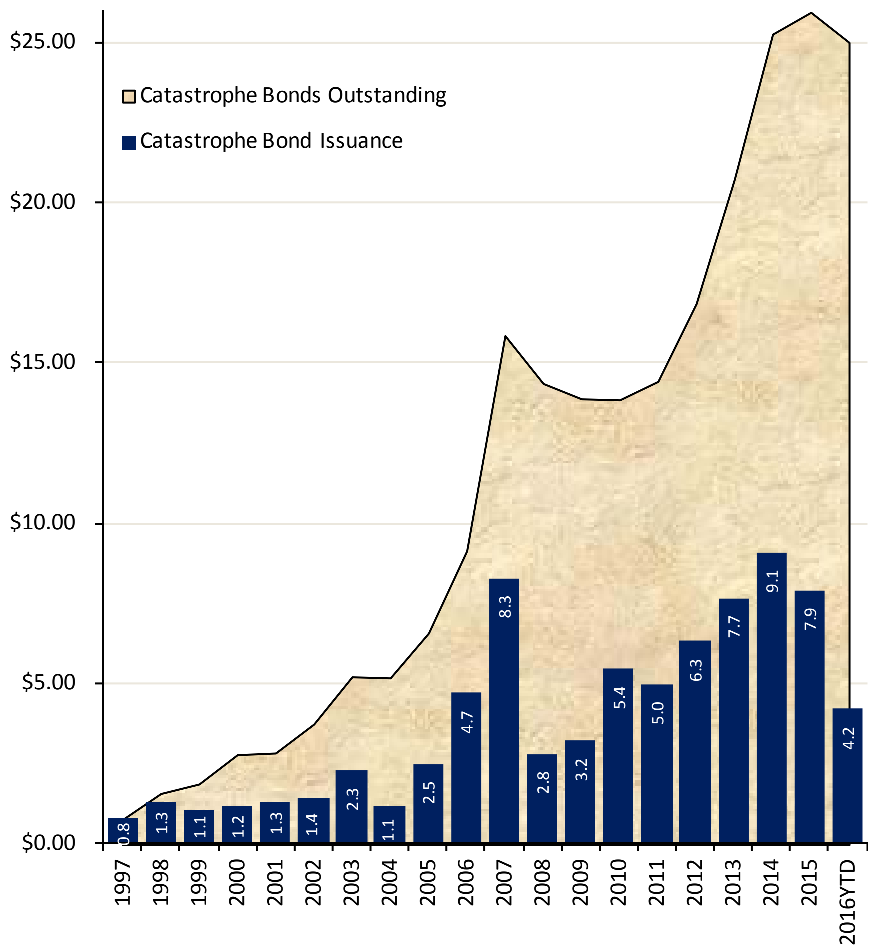
- Triggered by actual losses to BATA similar to traditional insurance
  - Requires BATA to prove actual damage through a lengthy claims adjustment process
- Usually structured to cover physical damage
- Typically does not include business interruption or revenue losses
- Generally 2 – 4 year terms

Earthquake Insurance Bonds

The Issuers

Catastrophe Bonds are actively utilized by governmental agencies across the Country

($ in billions)



Total Issuance (2010– 2016 YTD)

Sponsor (Beneficiary)	($mm)	Peril(s)
Florida Citizens	$2,800	Florida Hurricane
California Earthquake Authority	1,250	California Earthquake
Texas Windstorm Insurance Association	1,100	Texas Named Storm
North Carolina JUA/IUA	1,007	North Carolina Hurricane
CA State Compensation Insurance Fund	450	California Earthquake
Massachusetts Insurance Underwriting Association	396	Massachusetts Named Storm, Severe Thunderstorm and Winter Storm
Louisiana Citizens	365	Louisiana Named Storm
Amtrak	275	Northeast Named Storm (storm surge and wind) and Earthquake
New York MTA	200	New York City Storm Surge

WALL STREET JOURNAL

August 7, 2016

Investors are flocking to securities that shield the risks of hurricanes, pandemics and hackers

Source: Artemis, Trading Risk, as of September 6, 2016.
Note: Data Includes 144A and select 4(a)(2) transactions.

Earthquake Insurance Bonds
History of Payouts

Since 1997, catastrophe bonds have paid out[1] over $850 million
BATA would be the first California transit agency to initiate an EIB program

Transaction Name	Year Triggered	Trigger Event	Est. Lose to Notes ($mm)	Original Principal ($mm)
MultiCat Mexico 2012-1, Class C	2015	Hurricane Patricia	$50.00	$100.00
Mariah Re 2010-1	2011	2011 U.S. Severe Thunderstorm	100.00	100.00
Mariah Re 2010-2	2011	2011 U.S. Severe Thunderstorm	100.00	100.00
Vega Capital 2010-1, Class D	2011	Great Tohoku Earthquake	23.13	42.60
Muteki Limited	2011	Great Tohoku Earthquake	300.00	300.00
Crystal Credit, Class A	2008	Payout Due to Excess Insurance Claims	93.00	93.00
Crystal Credit, Class B	2008	Payout Due to Excess Insurance Claims	63.00	118.87
Avalon Re. Class C	2007	Hurricane Katrina	12.69	135.00
Kamp Re 2015 Limited	2005	Hurricane Katrina	143.90	190.00
George Town Re, Class B	2001	9/11	0.54	24.00
Kelvin Re	1999	Cold Winter (temperature linked)	2.48	21.61

Source: Artemis. Trading Risk, as of July 2016.
(1) List excludes losses caused by collateral losses related primarily to the Lehman Brothers bankruptcy.

Reserve Funding: Century Bonds

Flexible, Cost-Effective Toll Bridge Revenue Bonds

Program

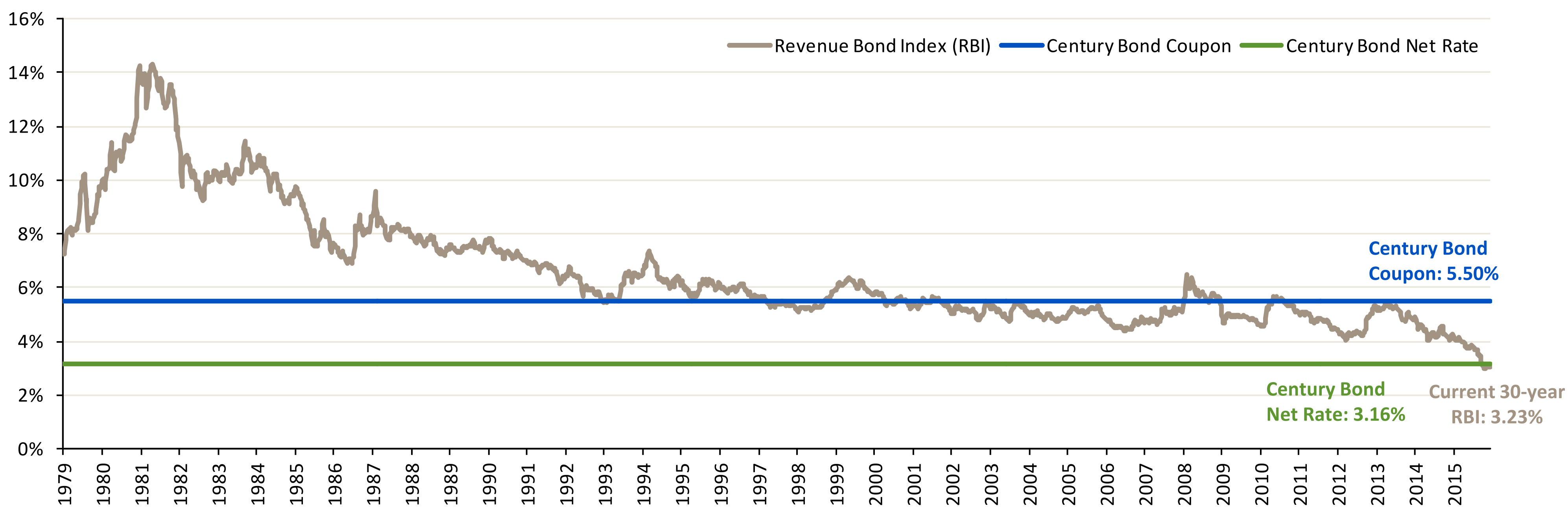
- Toll revenue bonds with up to 100 year final maturity
- Flexible, taxable structure
  - Portion of proceeds escrowed to retire debt
  - Remaining proceeds invested and utilized for any lawful purpose, including reserves at the sole discretion of BATA
    - No IRS spend-down rules
    - No arbitrage rules
  - Interest earned on proceeds will subsidize interest cost on bonds (Interest Rate 5.50%, Earnings Rate 2.34% - Cost 3.16%)

Risks

- Generally non-callable bonds
- Reinvestment rate risk for duration of bonds
- Investment subsidy drops as proceeds are used
- BATA would be the first California transit agency to pursue a Century Bond financing

Implementation Steps

- Process identical to issuance of Toll Revenue Bonds / BABs
- Requires additional marketing efforts



Century Bonds

Wide Issuer Base with Strong Investor Demand

Market for Century Bonds Opens and Closes Over Time

Issuer Name	Par Amount (000's)	Maturity
TAXABLE CENTURY BONDS		
Massachusetts Institute of Technology	$500,000	7/1/2116
New York Presebyterian Hospital	$250,000	8/1/2116
Wesleyan University	$250,000	7/1/2116
California Institute of Technology	$150,000	9/1/2116
Ohio University	$250,000	12/1/2114
Cleveland Clinic	$400,000	1/1/2114
District of Columbia Water and Sewer	$350,000	10/1/2114
Massachusetts Institute of Technology	$550,000	7/1/2114
Hamilton College	$103,000	7/1/2113
Bowdoin College	$128,500	7/1/2112
University of Pennslyvania	$300,000	9/1/2112
Tufts University	$250,000	4/15/2112
University of California	$860,000	5/15/2111
California Institute of Technology	$350,000	11/1/2111
Ohio State University	$500,000	6/1/2111
University of Southern California	$300,000	10/1/2111
Massachusetts Institute of Technology	$750,000	7/1/2111
Boston University	$100,000	7/15/2097
Massachusetts Institute of Technology	$75,000	11/2/2096
Yale University	$125,000	4/15/2096

Successfully Funded Infrastructure Bank

Metropolitan Transportation Commission
Regional Initiatives & Priorities

$500 million capital contribution (from BATA)*

Infrastructure Bank
Bay Area Infrastructure Finance Authority

I-Bank:
- Credit support
- Conduit financings
- Revolving loan program
- Regional grant program
- Credit/project policy application
- Bay Area Transportation Projects

FTA Grant Financing

Express Lanes Network:
- Toll setting
- Project management

*** BATA contribution limited to eligible toll projects**

Infrastructure Bank Organizational Options

The BAIFA Board is currently structured around Express Lanes

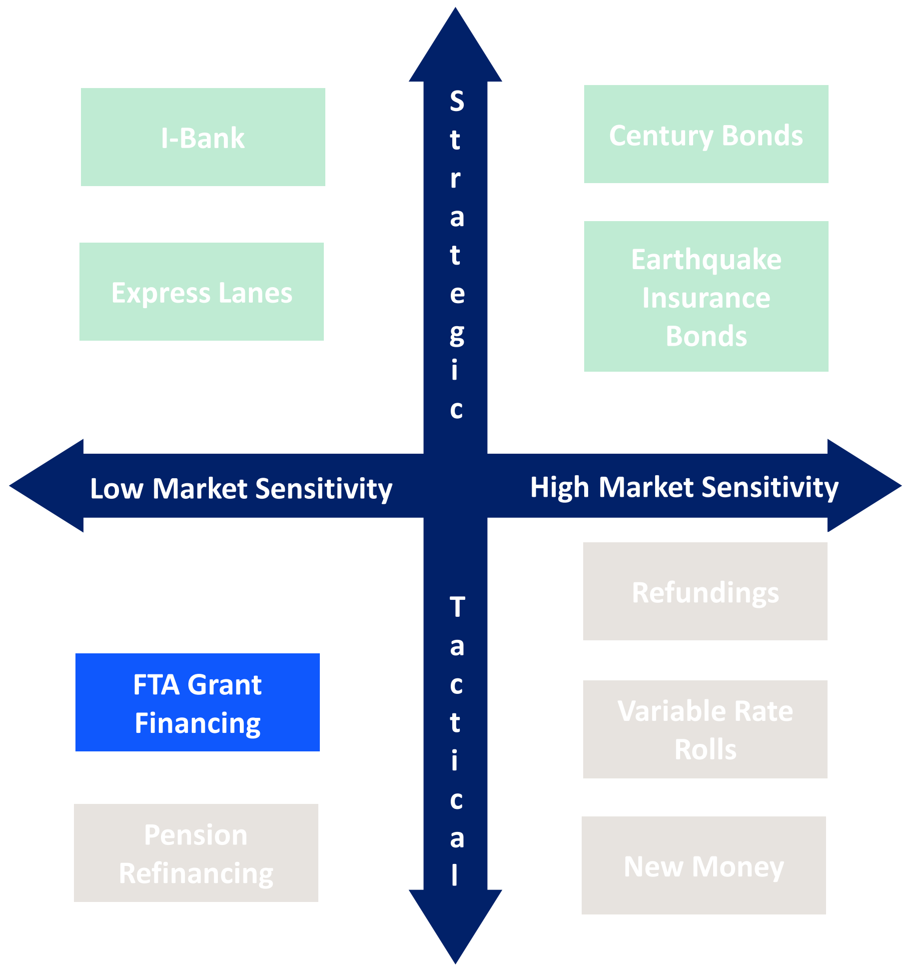
- Express lanes involve a limited regional scope
- Board members have a direct tie to the express lane program

Infrastructure projects will be more regional in scope

May be appropriate to expand BAIFA to match more regional scope of Infrastructure Bank

- Options include
  - No change
  - Full MTC/BATA board membership
  - Hybrid Board
    - Convert Board to full MTC/BATA membership
    - Delegate Express lanes and Express Lane toll setting to subcommittee

Improve Project Delivery

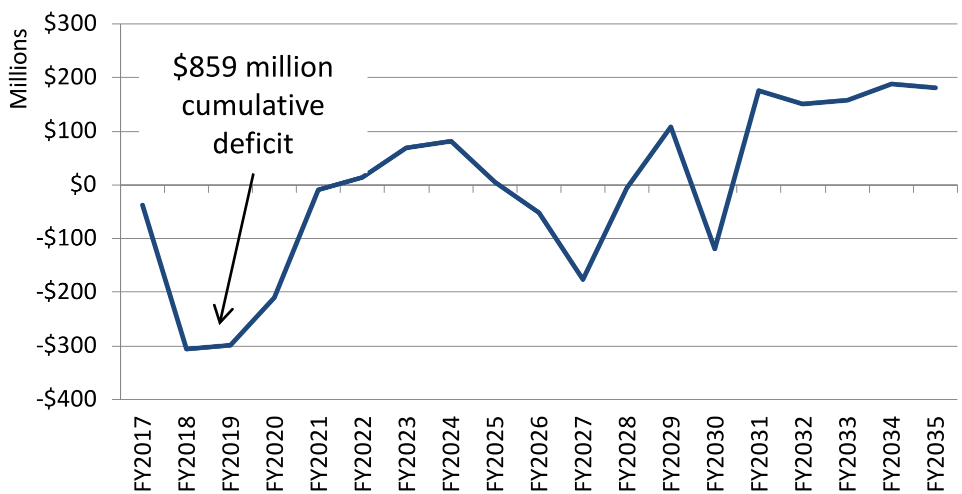


FTA Grant Financing
Improve Project Delivery

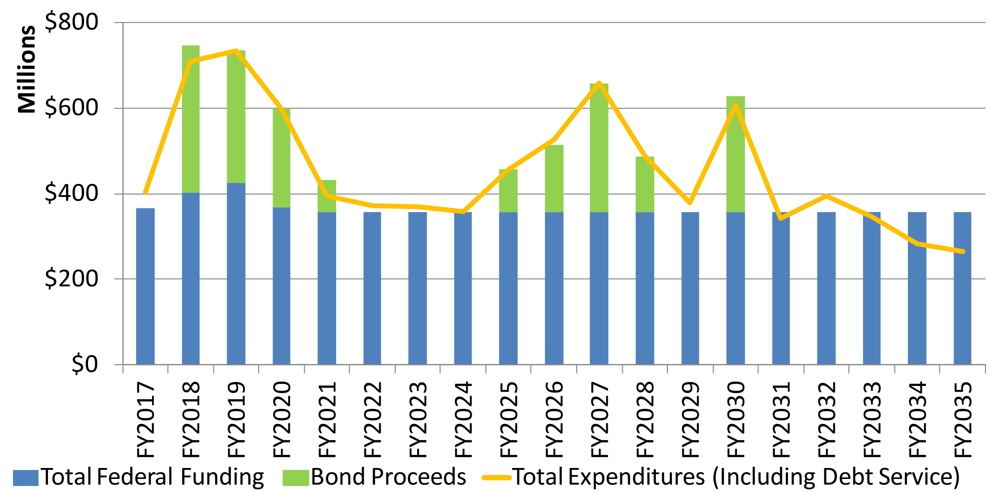
Problem

- Mismatch between Federal Formula Fund payments and project expenditure schedules, creating funding gaps
- Current plan has $859 million deficit over next five years

Funding Deficit – Current Plan



Funding after Grant Financing



FTA Grant Financing

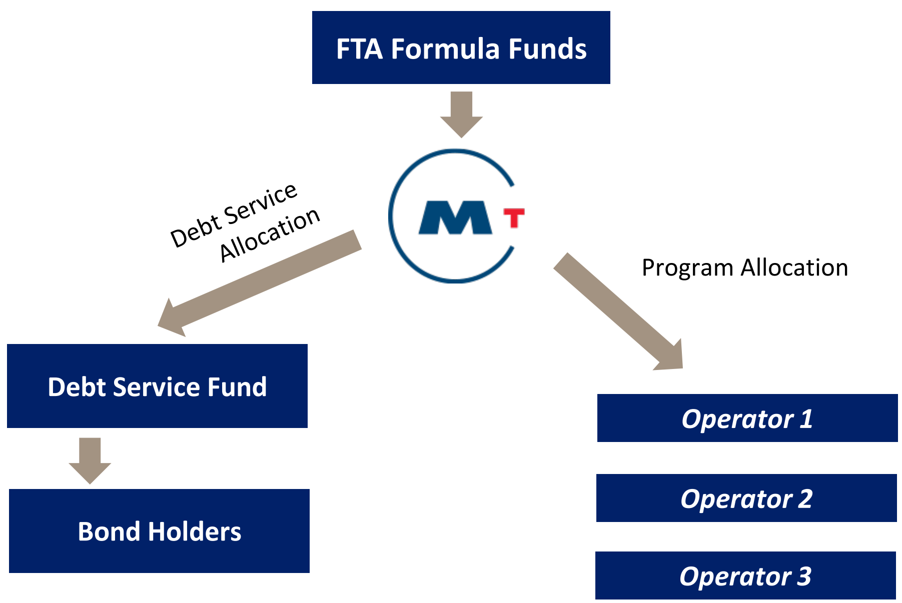
Improve Project Delivery

Benefits

- MTC continues to allocate funds
- Match resources with expenditures
- Accelerate project delivery

Risks

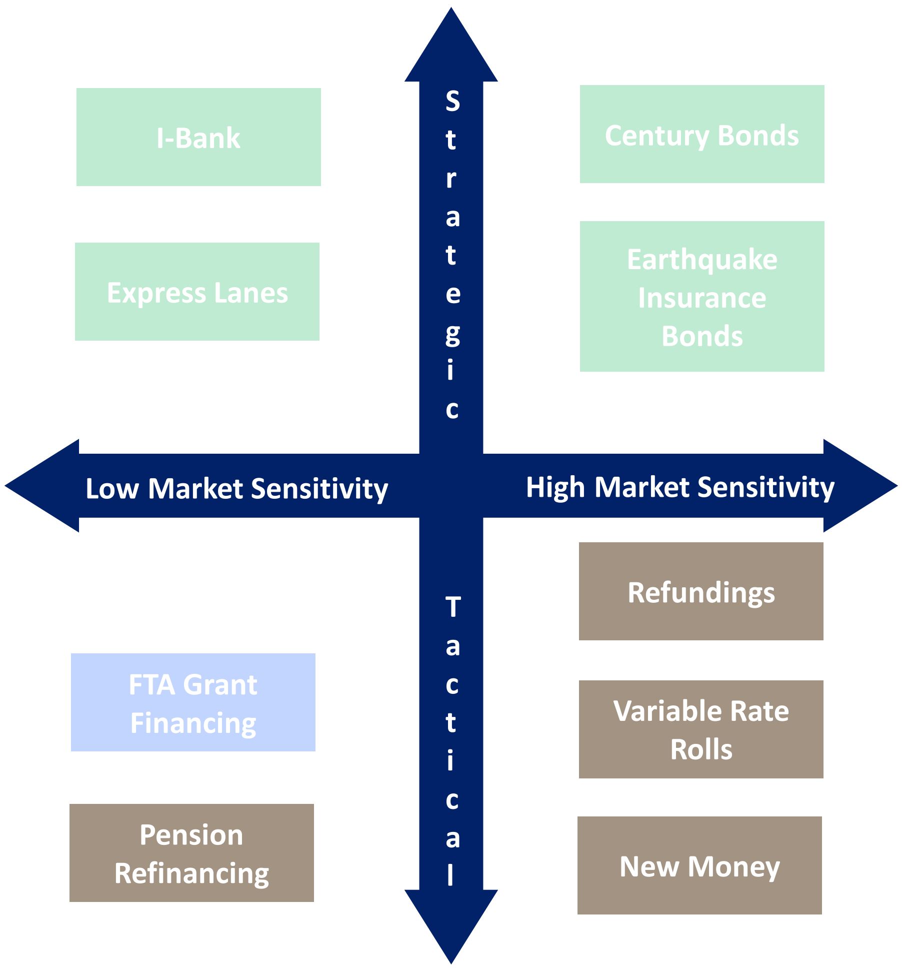
- Federal funding is reduced
- Reauthorization is delayed
- Reliance on negotiations and actions of operators



Implementation Steps

- BAIFA can issue the bonds
- Draft legal documents
- Gain FTA approval of funding plan
- Partner with regional transit operators to determine needs
- Initial funding planned for 2017

Reduce Debt Service Costs

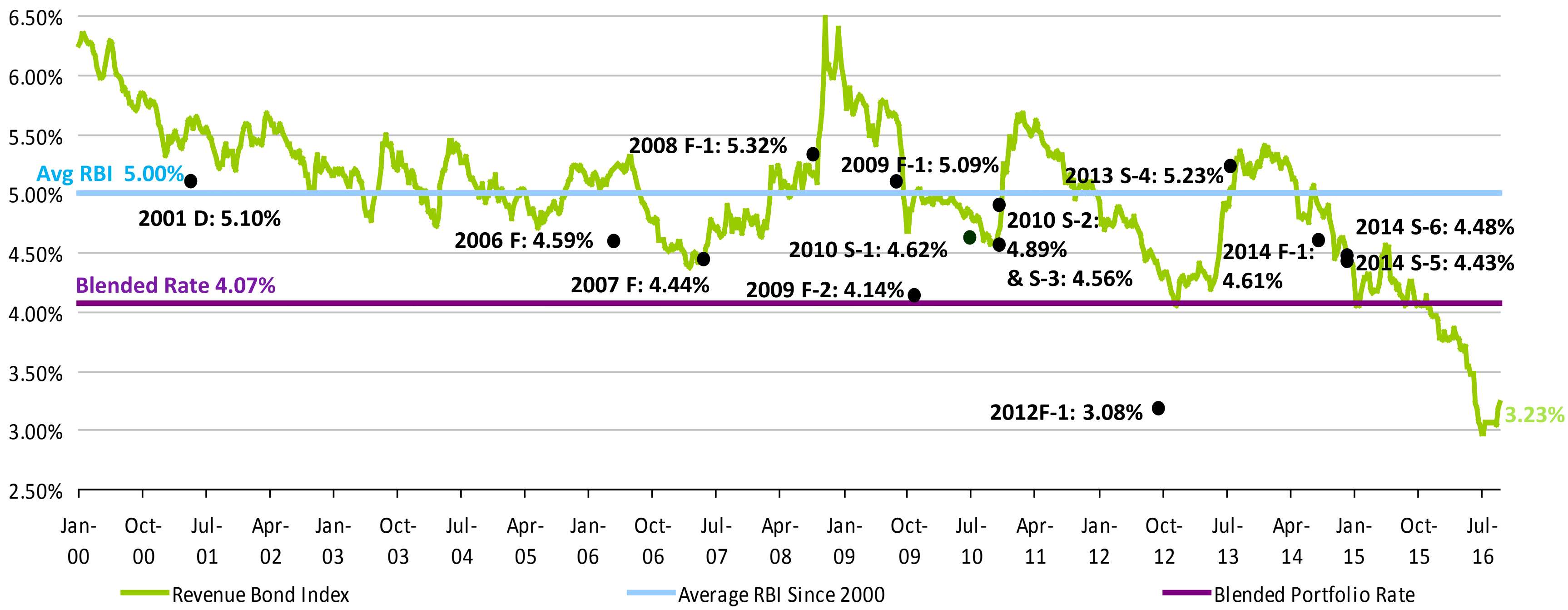


Debt Service

Blending Down BATA's Overall Cost of Funds

- BATA pro-forma interest rate is 5.25%, current all-inclusive cost of funds is approximately 4.07% (Blended Portfolio Rate)
- Revenue Bond Index ("RBI") at 3.23% creates potential new project capacity
- BATA's outstanding bonds can be refunded at lower interest rates for savings
- Favourable conditions to remarket floating rate bonds

Historical Interest Rate Market and BATA Fixed Rate Financing

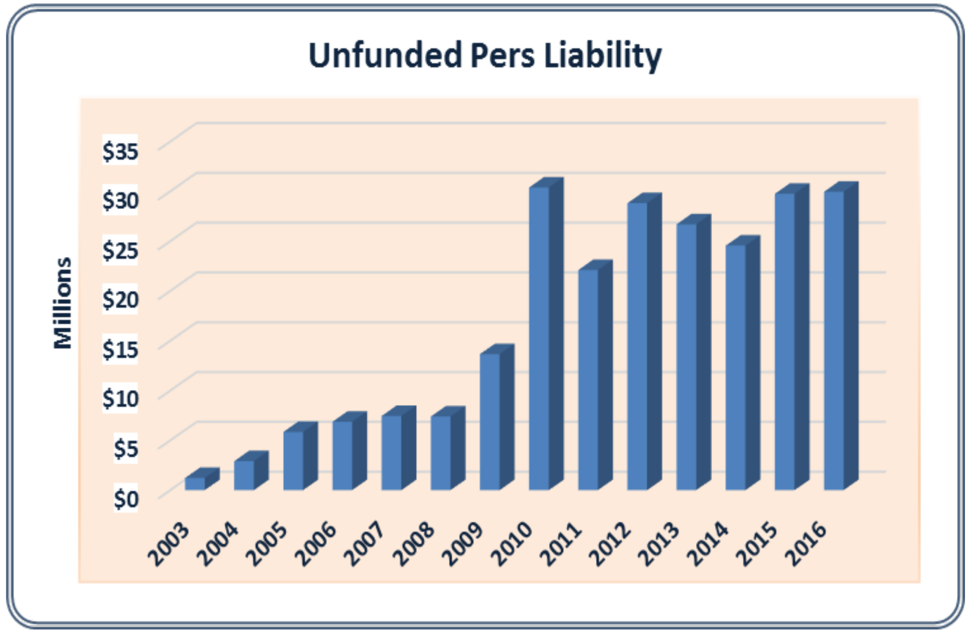


Note BABs cost calculated net of the Federal subsidy.

MTC's PERS Retirement Liability

Prefunding Retirement Liability to Protect Against Future PERS Increases

- MTC has PERS UAAL PERS liability of $34.6 million
- PERS estimate to retire UAAL is $61 million
  - 7.5% over 30 years
- Taxable financing can retire the obligation in 10 years
  - 3.0% over 10 years
- Prefunding saves approximately $30 million in future interest costs
- ABAG has UAAL of $13.7 million ($39.1 million amortized)
  - Similar structure should work with proper transition structure

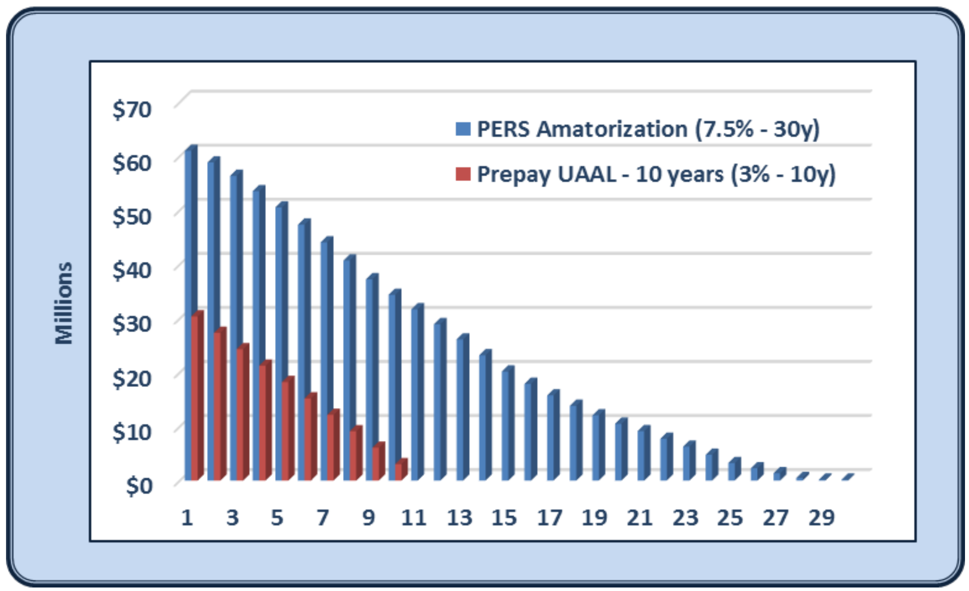


Risks

- Actuarial assumptions are 2015
- Actuarial assumptions can change
- Planned investment returns are not realized
- MTC still pays normal costs (10% of payroll)

Implementation Steps

- Verify MTC can enter into a loan or limited obligation
- Prepare taxable transaction documentation for MTC
- Prepare and close offering
- Security for debt obligation is pledge of MTC's non-Federal Fund revenues



2016 – 2017 Plan of Finance – Regional Priorities

1 **Strategically Fund Regional Projects**

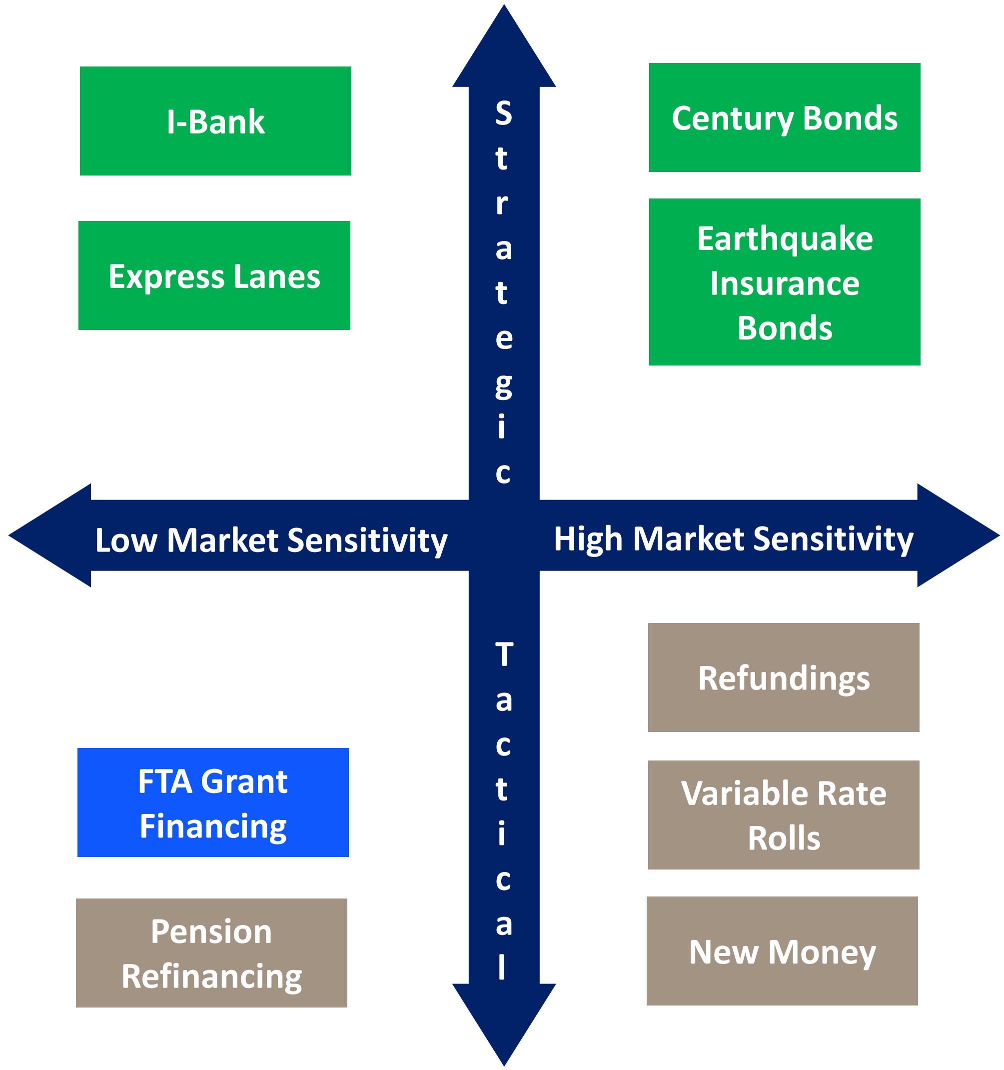
- Contract for EIB Services
- Develop I-Bank governance structure under BAIFA
- Issue Century Bonds
- Finalize EIB recommendations

2 **Improve Project Delivery**

- Meet with FTA
- Partner with local operators
- Return with recommended structure/transaction

3 **Reduce Debt Service Costs**

- Execute BATA transactions as market allows
- Finalize DOB recommendations



Timeline for Finance Team

	2016				2017											
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Formation of I-Bank					Transfer Initial Component of Capital Contribution					Banking Team Continued Monitoring of I-Bank Utilization						
Earthquake Insurance Bonds			Retain firm for risk assessment study		Complete Risk Assessment Study			Create / utilize reinsurance SPV		Draft legal and disclosure documentation			Meet w/rating agencies & investors		Price & Close	
Century Bonds	Update Disclosure	Meet w/rating agencies & investors		Price & Close												
FTA Securitization	Finalize Modeling	Meet with FTA and Operators			Draft documentation and agreements			Marketing	Price & Close	Banking Team Continued Monitoring of FTA Eligible Funding						
Portfolio Management	Update Disclosure	Meet w/rating agencies & investors		Price & Close	Remarket second roll of Term and Index Mode bonds											
Pension Funding					Negotiate terms/documents			Price & Close								

Next Steps for Commission

Sep 2016 | Oct 2016 | Nov 2016 | Dec 2016 | Winter 2016/2017 | Spring 2017

September 28, 2016
- 2016-2017 Plan of Finance presentation to the board

October 12 & 26, 2016
- Resolution ___ will be presented to the BATA, asking for:
  - Approval of forms of BATA offering document and disclosure, and issuance authority
    - Principal amount
    - Tax status
    - Interest rate caps
    - Refunding targets
    - Fees and expense caps
    - Term/Maturity
  - Authority to hire consultants and a law firm to evaluate EIBs

Winter 2016/2017
- Resolution ___ presented to BATA, asking for:
  - Modifications to BAIFA Board to create I-Bank
- Resolution ___ presented to MTC, asking for:
  - Authority to issue POBs
  - Modifications to BAIFA to create I-Bank

Spring 2017
- Resolution ___ presented to BAIFA, asking for:
  - Authority to issue FTA financing bonds
  - Approval of forms of FTA financing documents
- Resolution ___ presented to BATA, asking for:
  - Authority to proceed with EIBs