

DRAFT



**Massachusetts Bay
Transportation Authority**

MBTA Retirement Fund

FMCB Update

6/19/2017

ATTORNEY-CLIENT PRIVILEGED,
FOR POLICY DEVELOPMENT PURPOSES



Sensitivity Analysis

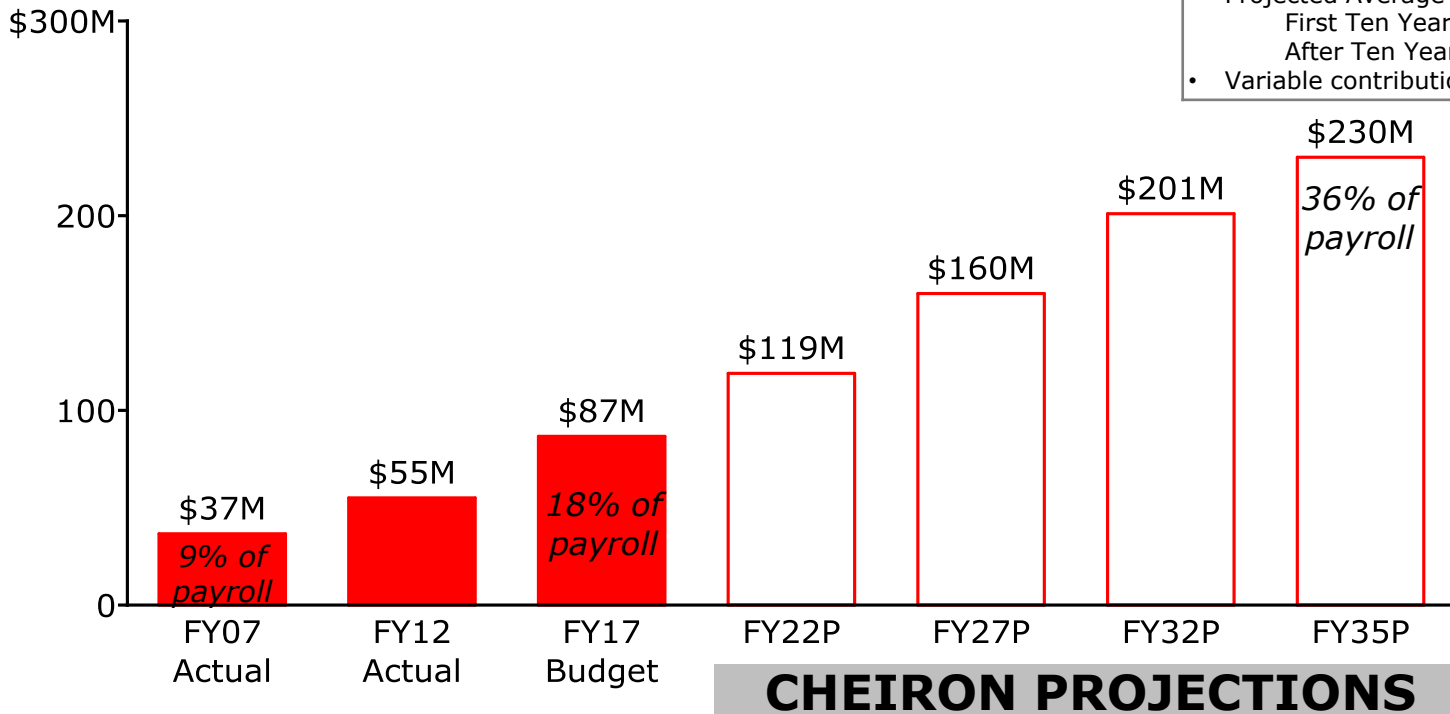


Without action, the MBTA annual contribution could grow to \$200M+ and consume 36% of payroll

Presented to FMCB 5/22/17

- KEY ASSUMPTIONS:**
- Target rate of return (discount rate) = 7.75%
 - Current Plan Provisions
 - Projected Average Annual Rate of Return:
 - First Ten Years: 4%
 - After Ten Years: 7%
 - Variable contribution rate

MBTARF contribution (\$M)

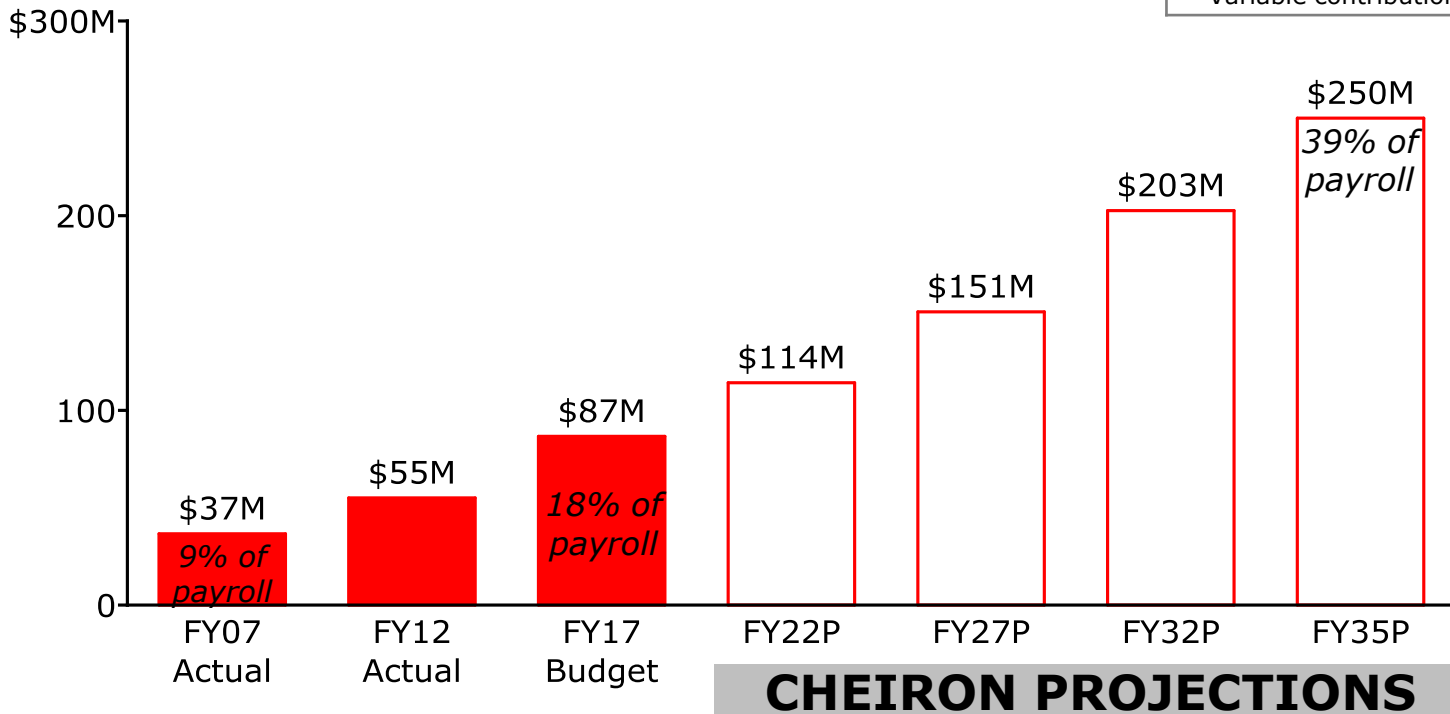


Note: \$7.0M in contributions during FY07 were retroactive 'catch-up' payments for previous years in which not enough had been contributed compared with contractual obligations; these have been removed
Source: MBTA Financials; Cheiron Projections



MBTA Required Contribution at 5% market returns 39% of payroll

MBTARF contribution (\$M)



- KEY ASSUMPTIONS:**
- Target rate of return (discount rate) = 7.75%
 - Current Plan Provisions
 - Projected Average Annual Rate of Return = 5%
 - Variable contribution rate

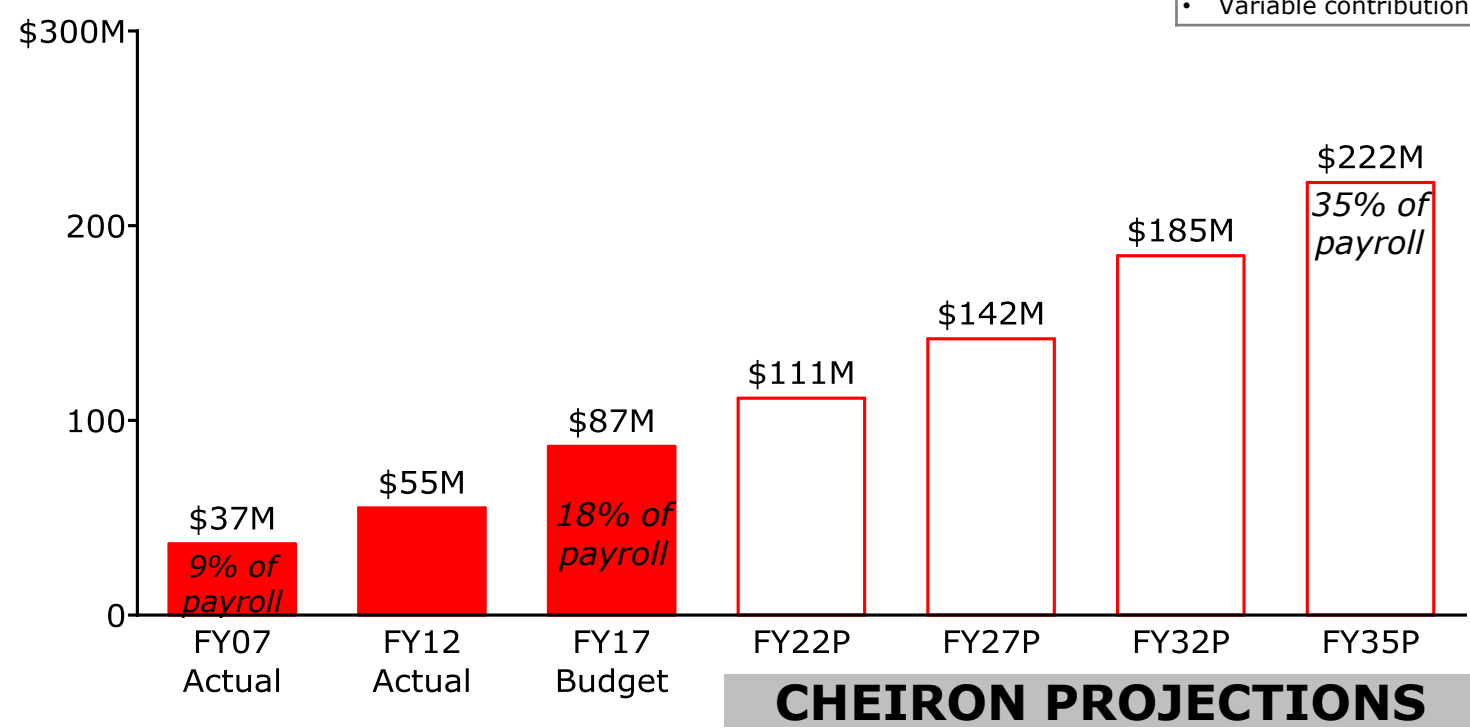
Note: \$7.0M in contributions during FY07 were retroactive 'catch-up' payments for previous years in which not enough had been contributed compared with contractual obligations; these have been removed
Source: MBTA Financials; Cheiron Projections



MBTA Required Contribution at 6% market returns 35% of payroll

- KEY ASSUMPTIONS:**
- Target rate of return (discount rate) = 7.75%
 - Current Plan Provisions
 - Projected Average Annual Rate of Return = 6%
 - Variable contribution rate

MBTARF contribution (\$M)

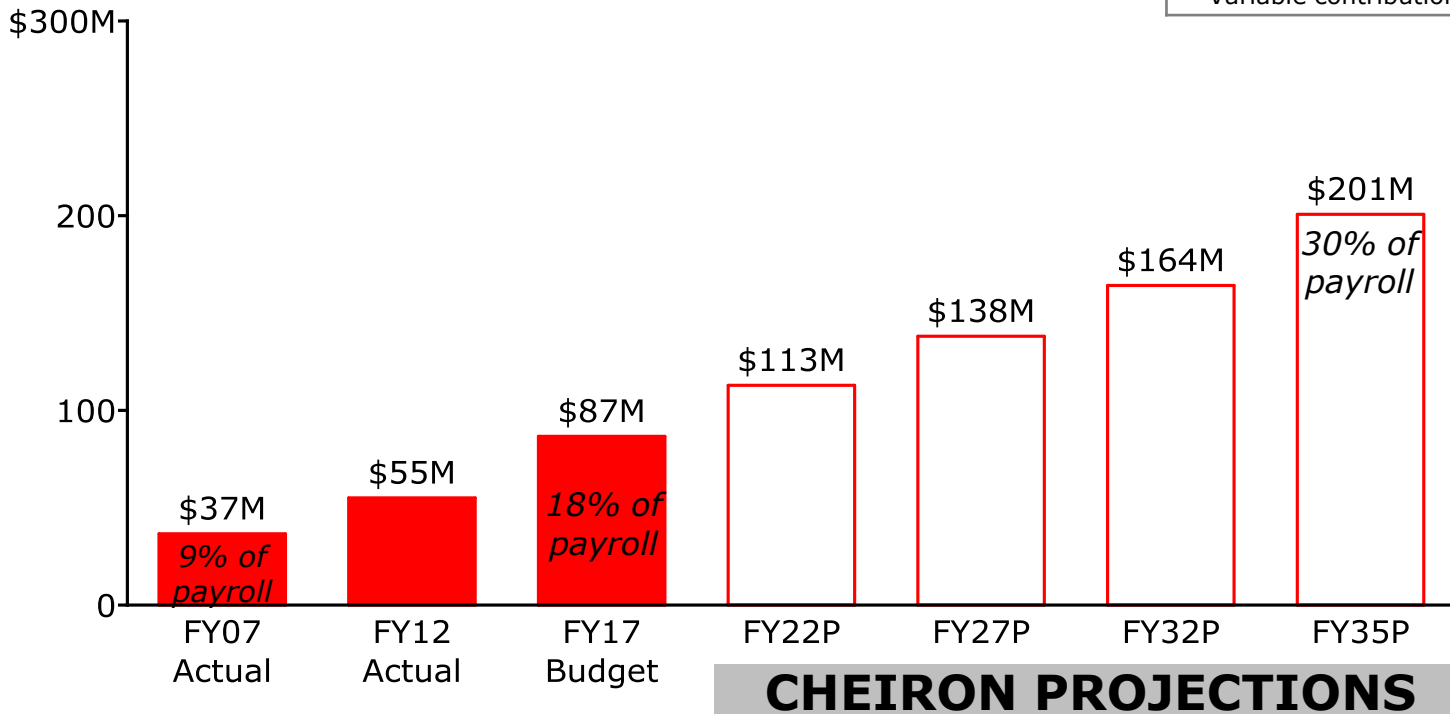


Note: \$7.0M in contributions during FY07 were retroactive 'catch-up' payments for previous years in which not enough had been contributed compared with contractual obligations; these have been removed
Source: MBTA Financials; Cheiron Projections



MBTA Required Contribution at 7% market returns 30% of payroll

MBTARF contribution (\$M)



KEY ASSUMPTIONS:

- Target rate of return (discount rate) = 7.75%
- Current Plan Provisions
- Projected Average Annual Rate of Return = 7%
- Variable contribution rate

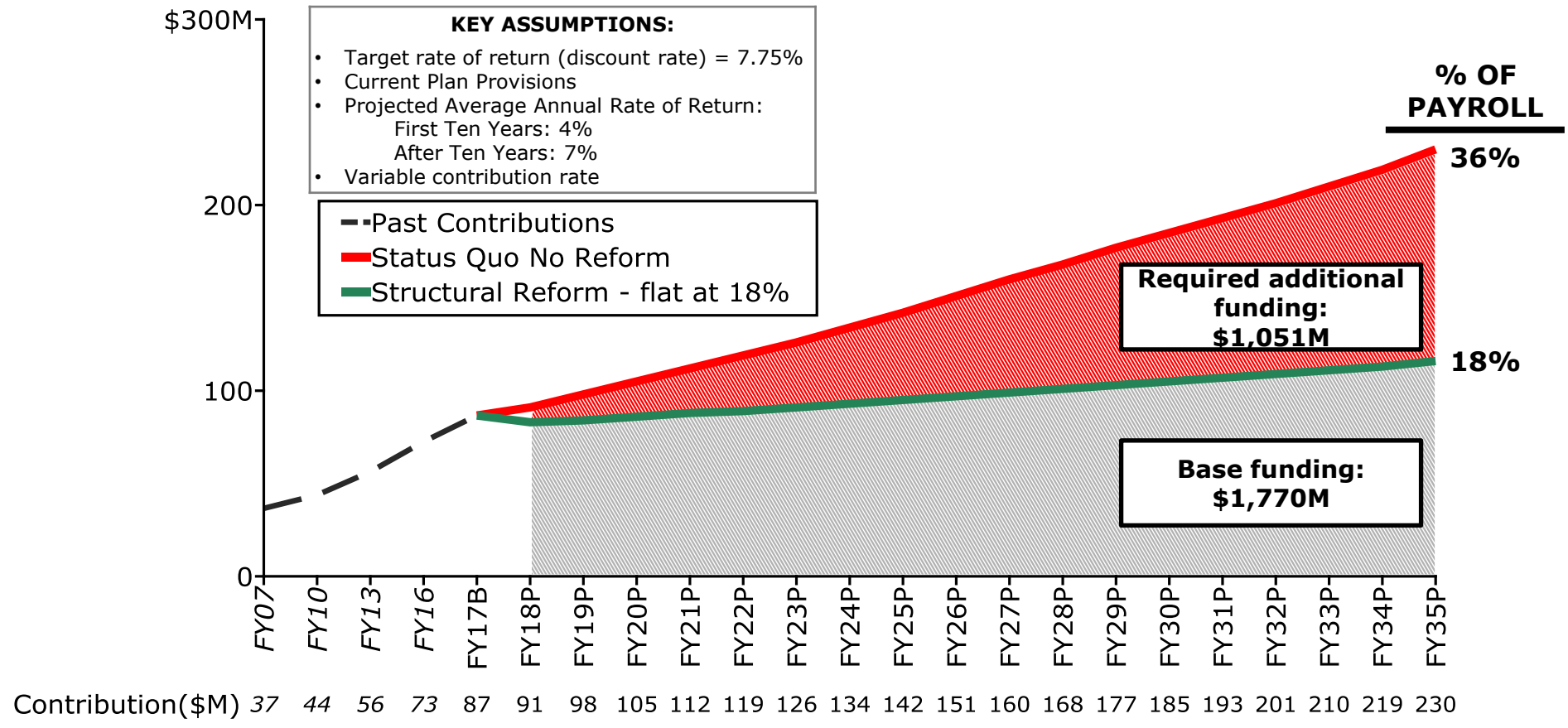
Note: \$7.0M in contributions during FY07 were retroactive 'catch-up' payments for previous years in which not enough had been contributed compared with contractual obligations; these have been removed
Source: MBTA Financials; Cheiron Projections

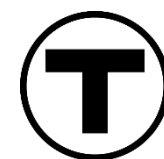


Without action, MBTARF could require \$3B in taxpayer funding over next 20 years

Presented to FMCB 5/22/17

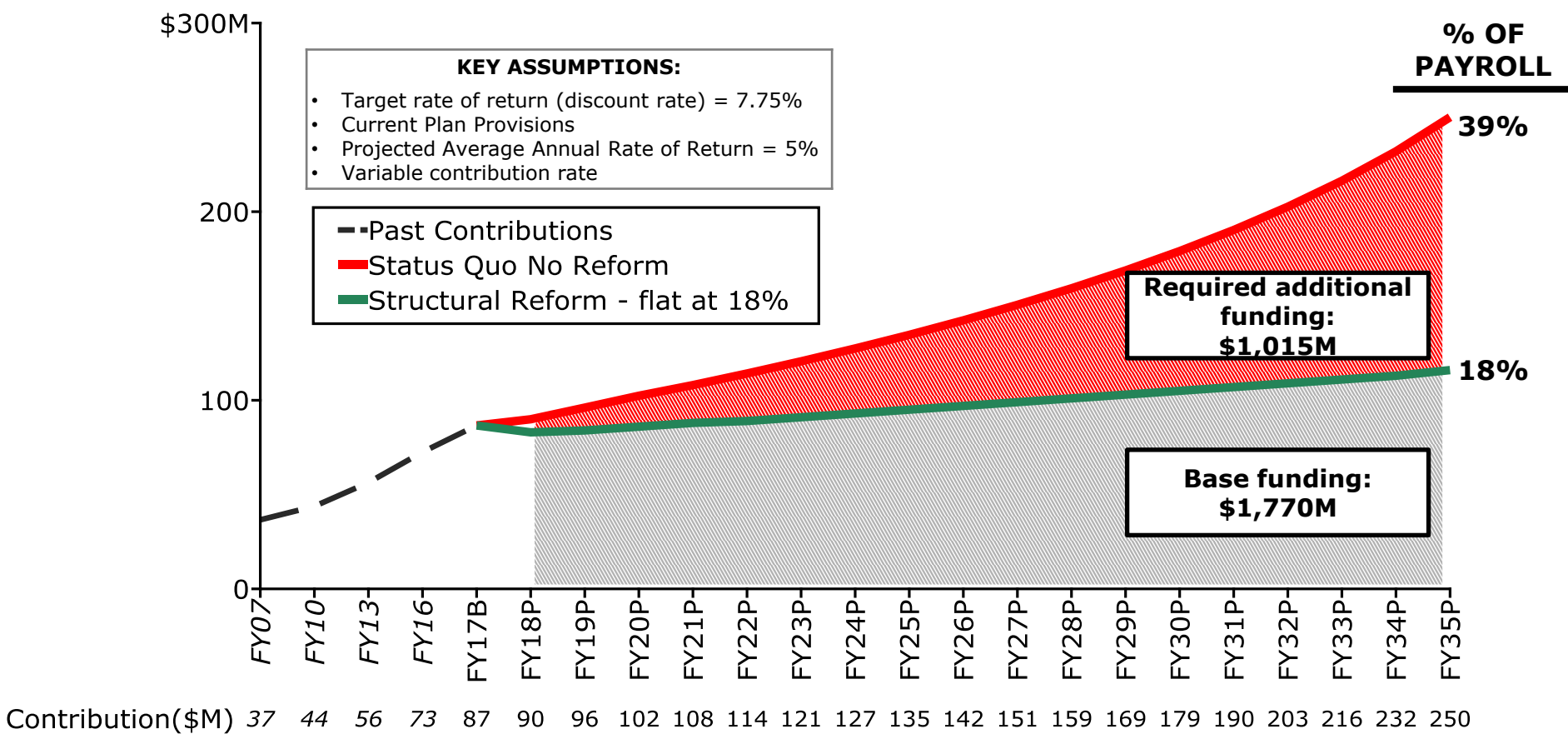
MBTARF Contribution Scenarios

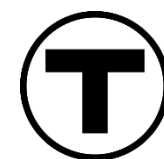




Required taxpayer funding at 5% market returns \$2.8B

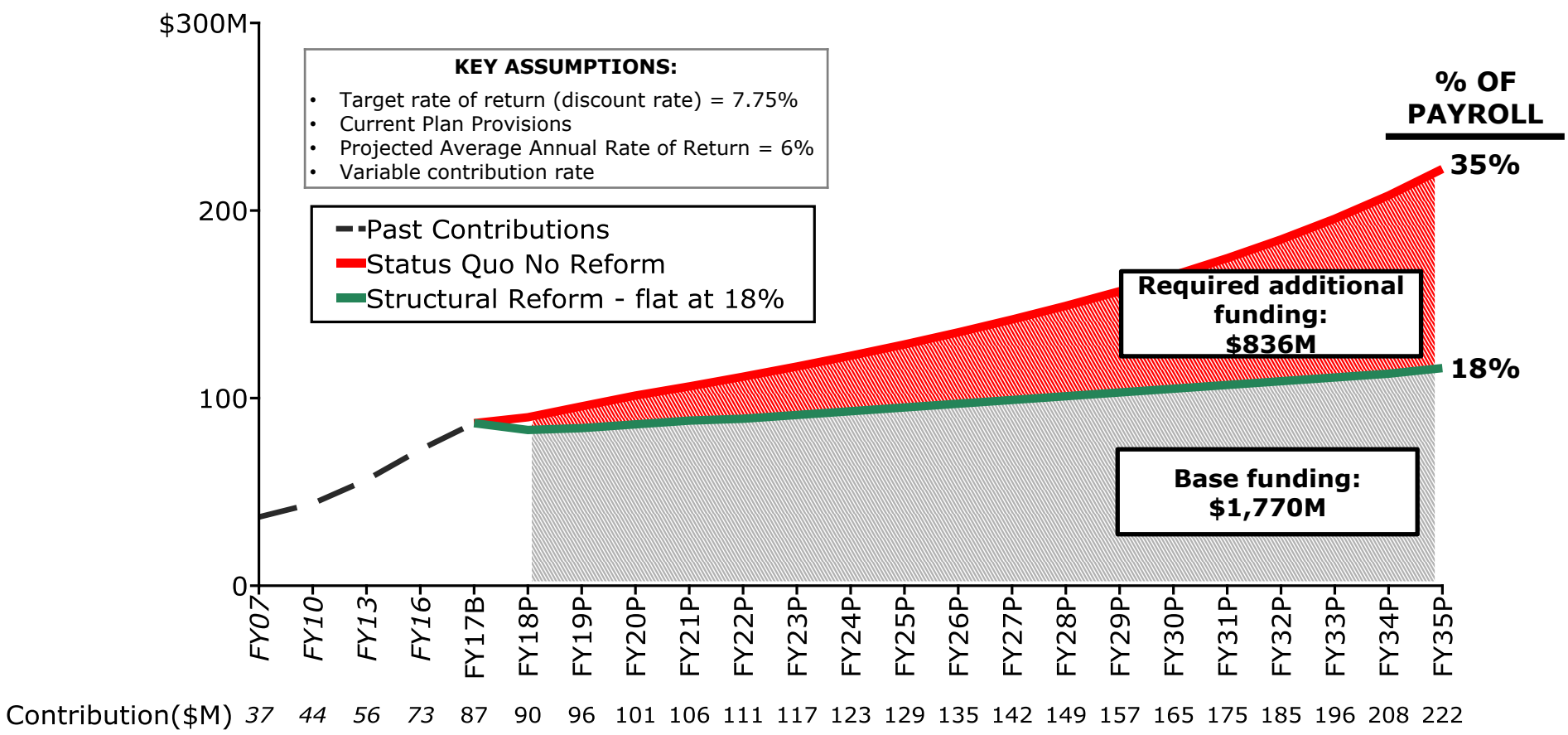
MBTARF Contribution Scenarios

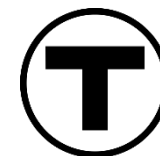




Required taxpayer funding at 6% market returns \$2.6B

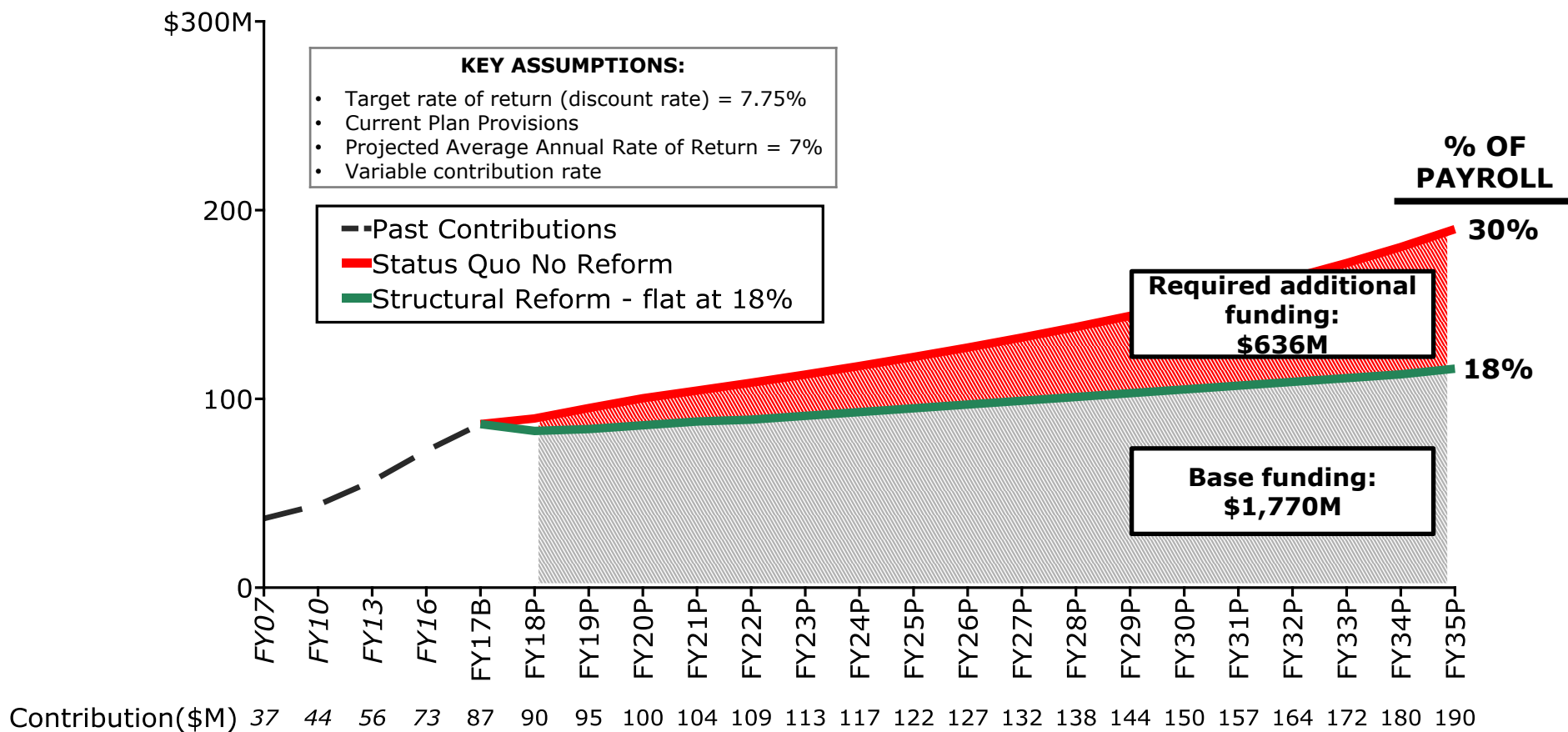
MBTARF Contribution Scenarios





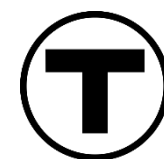
Required taxpayer funding at 7% market returns \$2.4B

MBTARF Contribution Scenarios





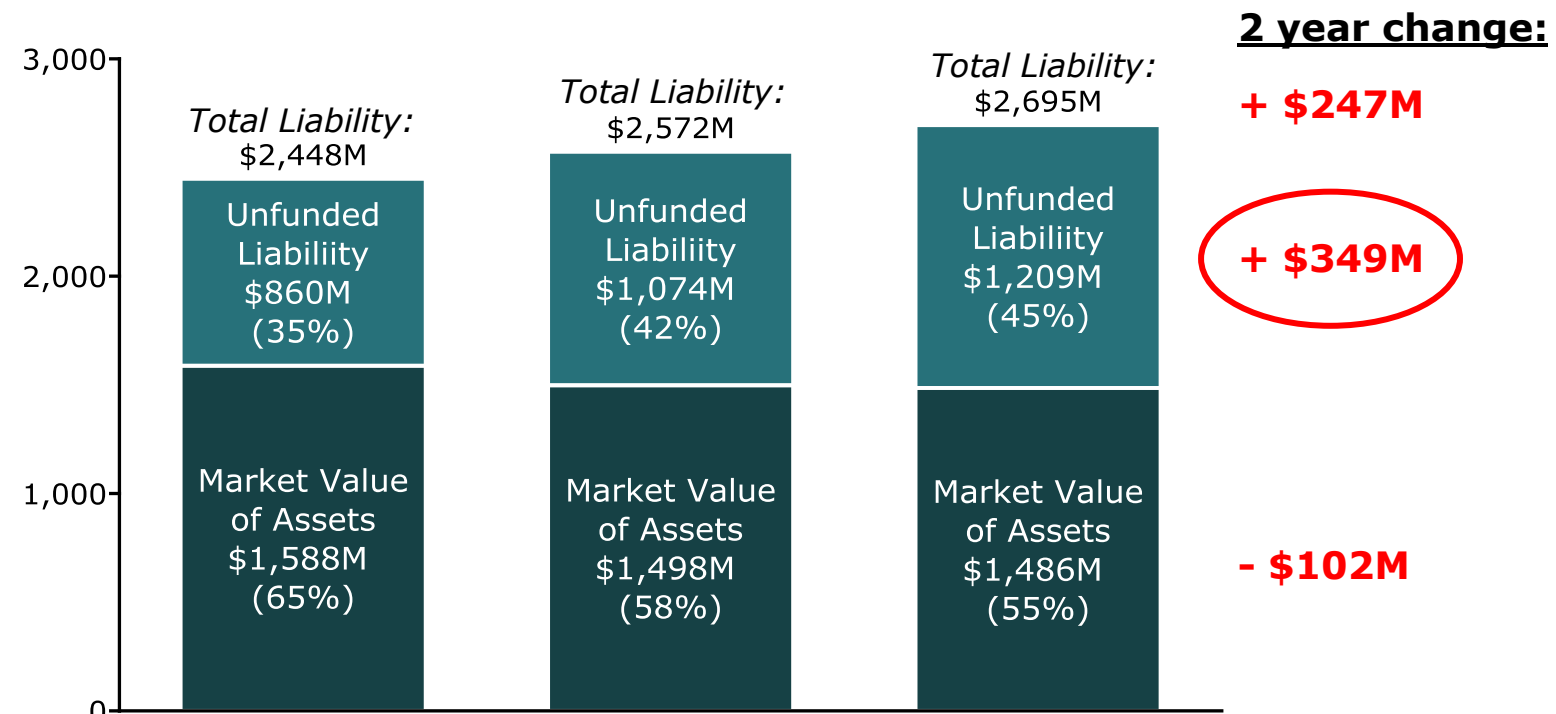
2016 Valuation Update



Measured on a market-value basis, unfunded liability has increased by \$349M since 12/31/2014

Preliminary as of 6/13/2017

Assets and Liabilities of the MBTARF, 2014 - 2016



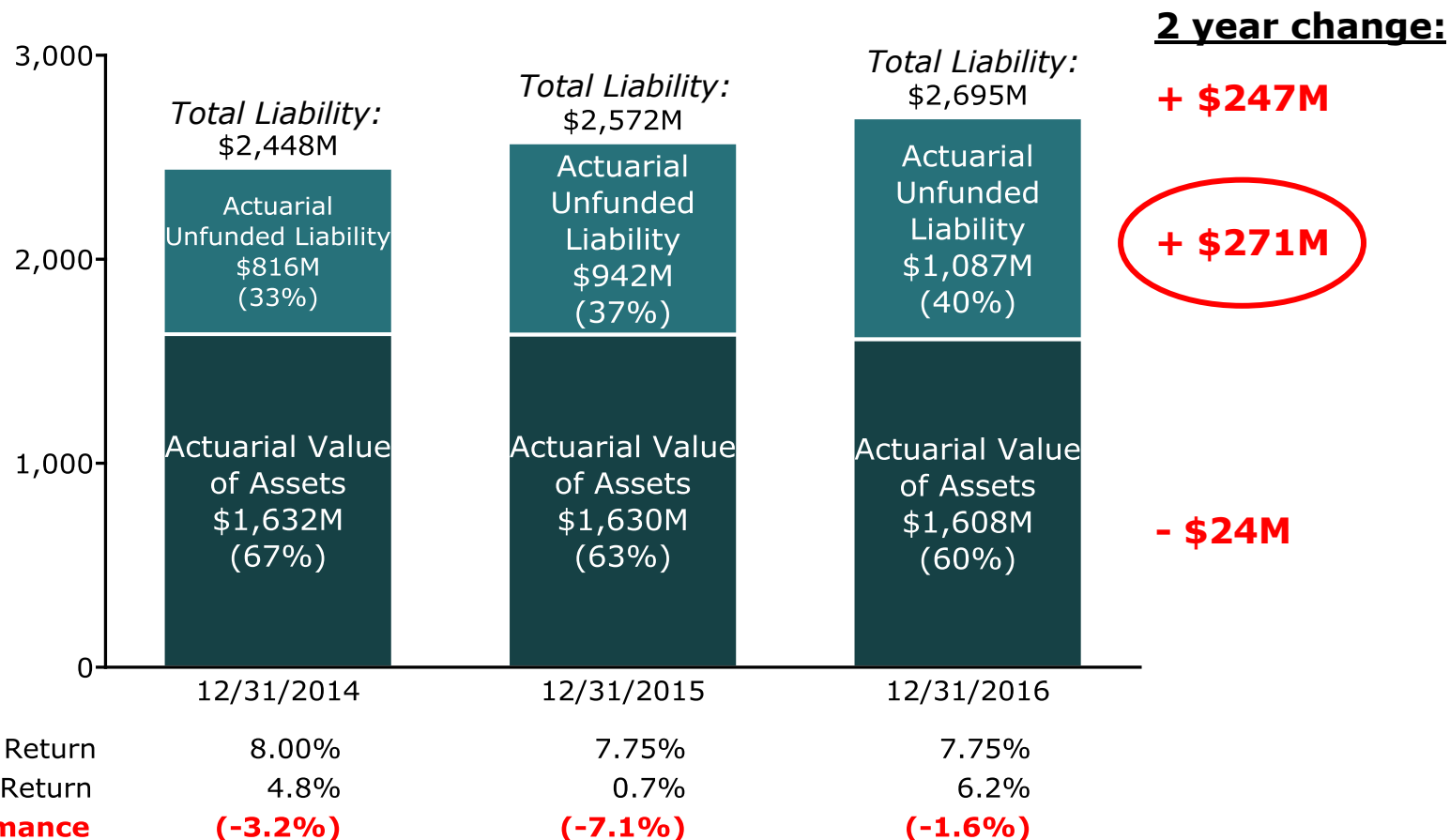
Target Market Return	8.00%	7.75%	7.75%
Actual Market Return	4.8%	0.7%	6.2%
Underperformance	(-3.2%)	(-7.1%)	(-1.6%)

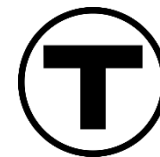


Measured on an actuarial-value basis, unfunded liability has increased by \$271M since 12/31/2014

Preliminary as of 6/13/2017

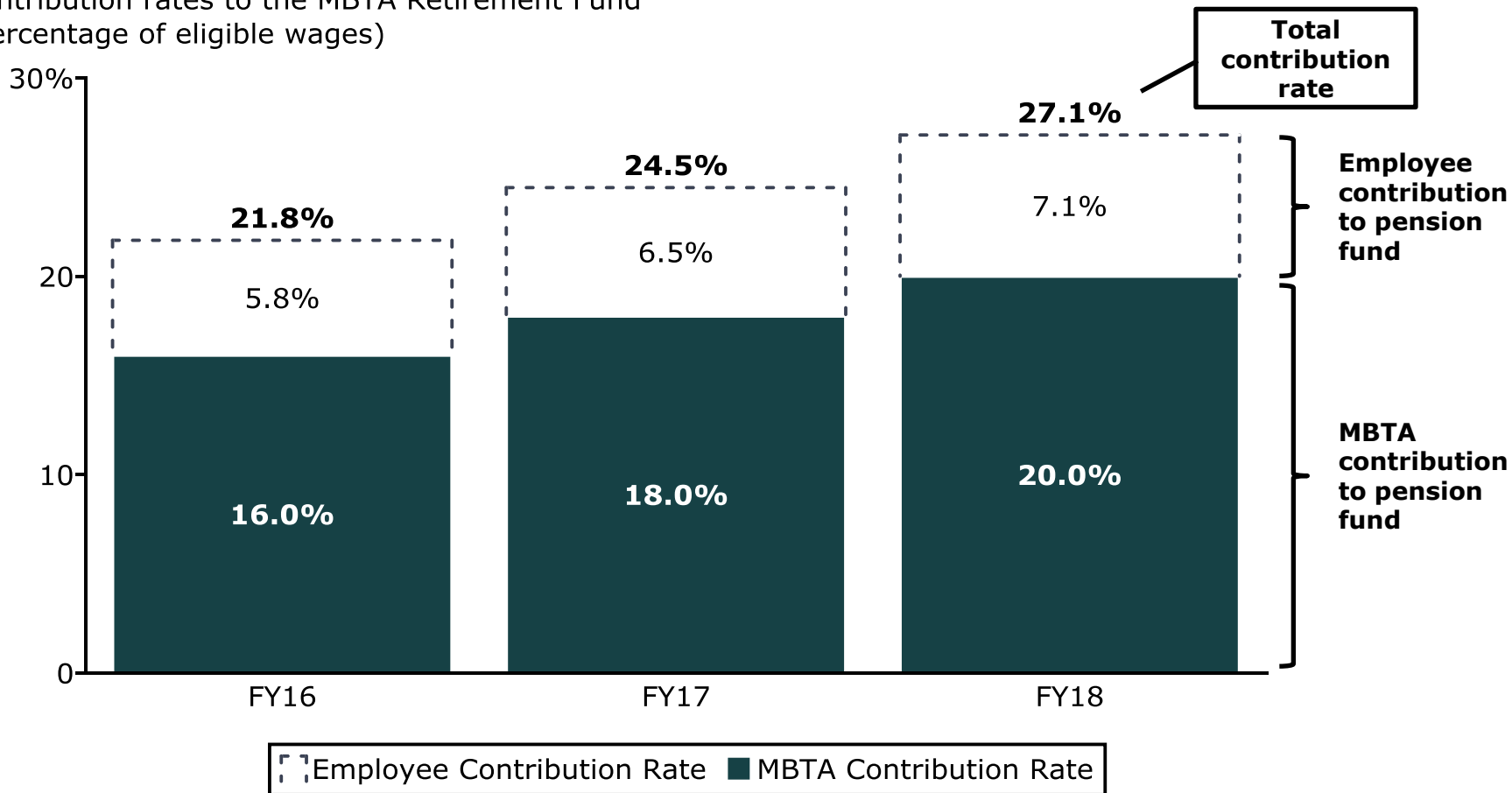
Assets and Liabilities of the MBTARF, 2014 - 2016



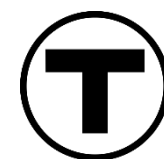


Contribution rate (%): FY16 – FY18

Contribution rates to the MBTA Retirement Fund
(Percentage of eligible wages)



Source: MBTARF Contribution Rates



Contribution rate (\$): FY16 – FY18P

MBTA pension expense will grow 27% (\$20M) from FY16 through FY18

MBTA Main Fund Contribution (\$M)

