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# **Local Governmental Employees' Retirement System Actuarially Determined Employer Contributions (ADEC) Projections for the Local System**

**January 29, 2020 Board of Trustees Meeting**

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**Jonathan Craven, ASA, FCA, EA, MAAA**





# Projections

- Projections of contribution requirements and funded status into the future can be helpful planning tools for stakeholders. This section provides such projections. The projections of the actuarial valuation are known as deterministic projections. Deterministic projections are based on one scenario in the future. The baseline deterministic projection is based on December 31, 2018 valuation results and assumptions.
  
- Key Projection Assumptions
  - Valuation interest rate of 7.00% for all years in conjunction with direct rate smoothing of the employer contribution rate over a 3-year period beginning July 1, 2019.
  - 7.00% investment return on market value of assets
  - Actuarial assumptions and methods as described in Appendix D of the latest actuarial valuation report. All future demographic experience is assumed to be exactly realized.
  - The contribution rate under the Employer Contribution Rate Stabilization Policy (ECRSP) and Direct Rate Smoothing is contributed until fiscal year ending 2022.
  - The actuarially determined employer contribution rate is contributed for fiscal years ending 2023 and beyond.
  - 0% increase in the total active member population
  - No cost-of-living adjustments granted
  - Future pay increases based on long-term salary increase assumptions



# Projections

- The revised ECRSP adopted by the Board of Trustees on January 31, 2019 requires that recommended contributions for general employees be set at 8.95% of payroll for fiscal year ending 2020, 10.15% for fiscal year ending 2021, and 11.35% for fiscal year ending 2022, with the following additional adjustments, if applicable:
  - If the underlying actuarially determined employer contribution rate (ADEC) for a given fiscal year is 50% higher than the scheduled employer contribution rate for that fiscal year, the scheduled employer contribution rate for the current and future fiscal years increases 0.50%;
  - If the underlying ADEC for a given fiscal year is 50% lower than the scheduled employer contribution rate for that fiscal year, the scheduled employer contribution rate for the current and future fiscal year decreases 0.50%;
  - If the General Assembly grants any additional COLA beyond the amount of COLA granted by the Board, increases the multiplier for active employees, or changes the benefit structure in a way that has a cost to the system, the schedule of contributions for the current and future fiscal years will be increased by the cost of the benefit enhancement. The cost of any COLA granted by the Board under the authority allowed by statute will not impact the scheduled contribution rates.
  - Contribution rates for law enforcement officers will be 0.75% higher than contribution rates for general employees.

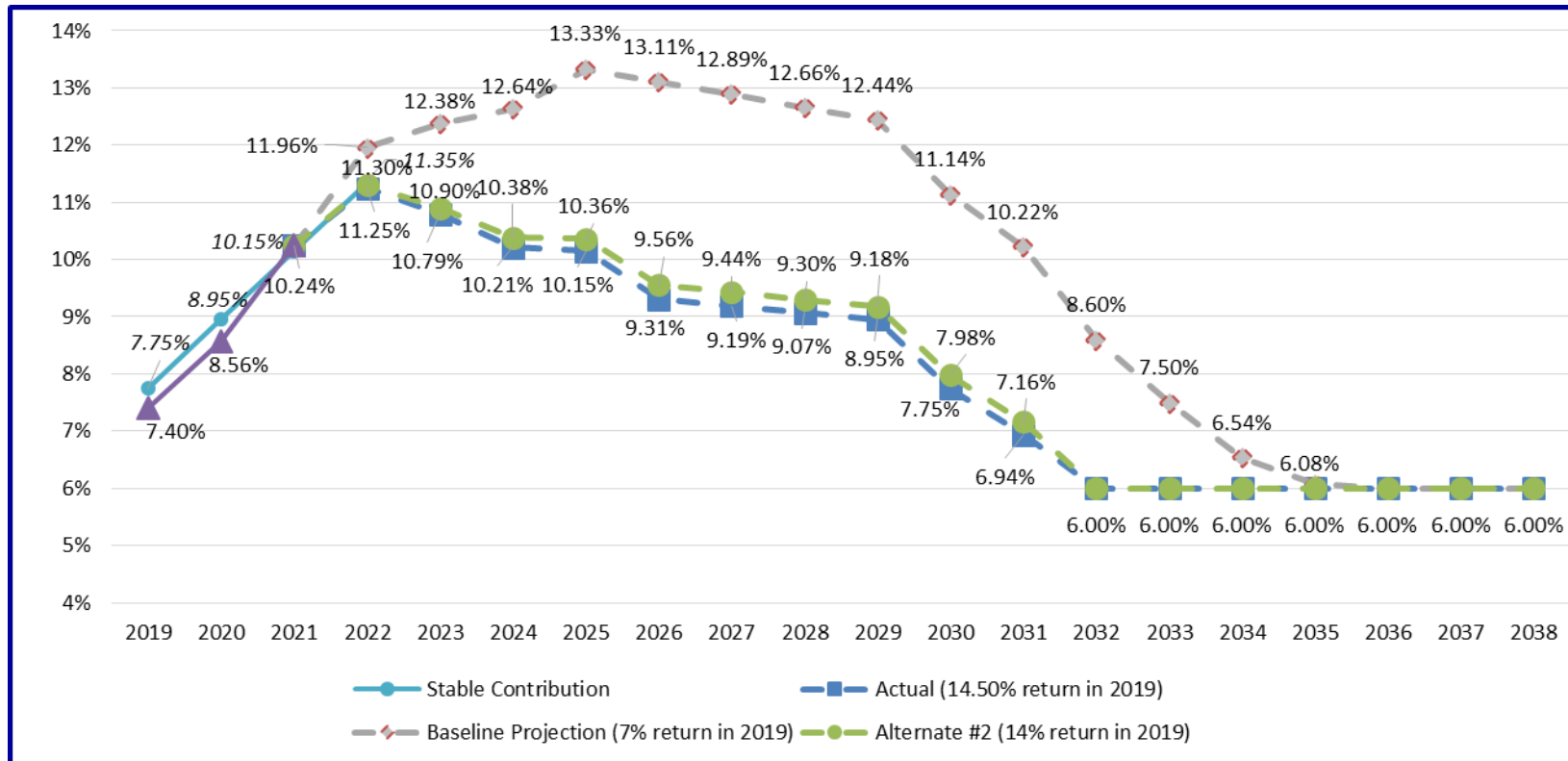


# Projections

- In addition to the baseline projection, we have provided two alternate deterministic projections.
  - Alternate #1 is based on the same assumptions as the baseline deterministic projection except that it is based asset return of 14.5% for calendar year 2019. The preliminary return of 14.5% for calendar year 2019 was provided by RSD Staff.
  - Alternative #2 is based on the same assumptions as the baseline deterministic projection except that it is based asset return of 14.0% for calendar year 2019. This was included in the sensitivity section of the actuarial report.

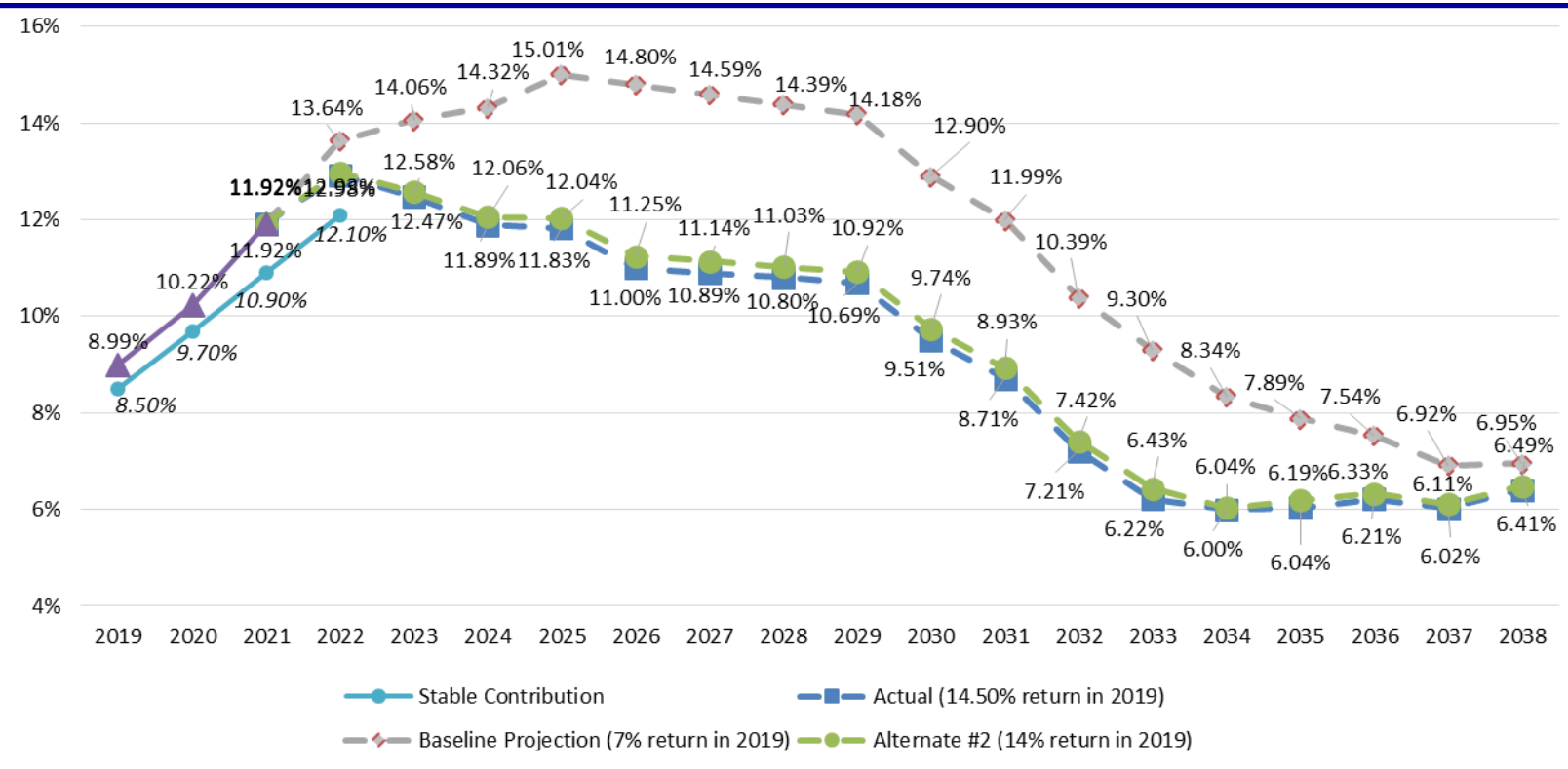


# Projected Contribution Rates - General Employees and Firefighters



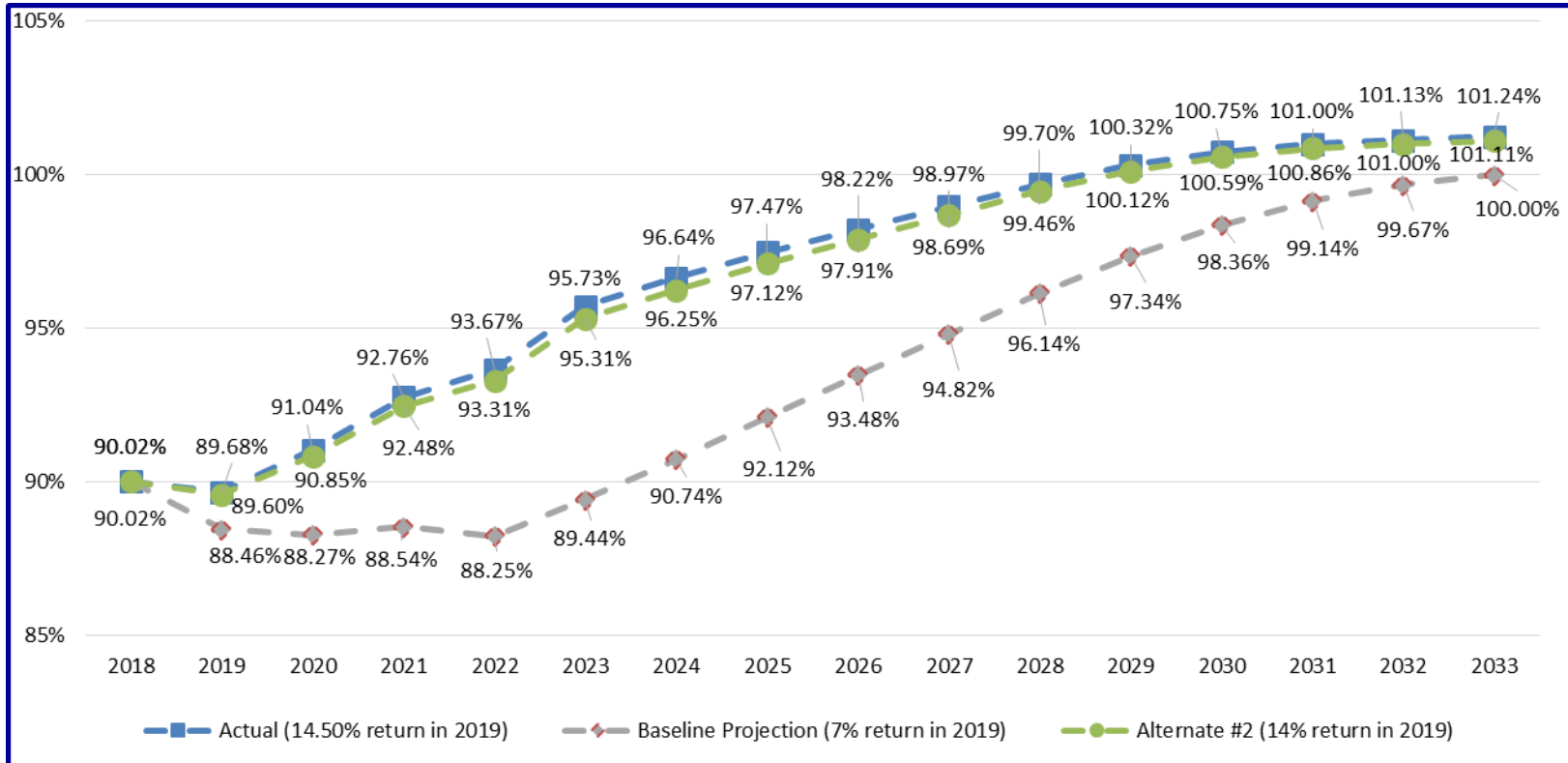
Estimated returns were 7.5% higher than expected. As a result we are projecting that the unfunded actuarial accrued liability will be lower resulting in lower employer contribution rates under Alternate #1 (actual estimated return of 14.5%) and Alternate #2.

# Projected Contribution Rates - Law Enforcement Officers



Estimated returns were 7.5% higher than expected. As a result we are projecting that the unfunded actuarial accrued liability will be lower resulting in lower employer contribution rates under Alternate #1 (actual estimated return of 14.50%) and Alternate #2.

# Projected Funded Ratio



Estimated returns were 7.5% higher than expected. As a result we are projecting that the unfunded actuarial accrued liability will be lower resulting in higher funded ratios.



# Certification

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Because of limited scope, Cavanaugh Macdonald performed no analysis of the potential range of such future differences, except for some limited analysis in financial projections or required disclosure information. Results prior to December 31, 2018 were provided by the prior consulting actuary.

We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

Larry Langer, ASA, EA, FCA, MAAA  
Principal and Consulting Actuary

Jonathan T. Craven, ASA, EA, FCA, MAAA  
Consulting Actuary



# **APPENDIX**

# Fiscal Year Contribution Projection Baseline



## Baseline Projection (7% return in 2019)

Fiscal Year Ending	Employer Contribution Rate - General and Firefighters	Employer Contribution Rate - Law Enforcement Officers	Employer Contributions	Member Contributions	Benefit Payments Val Year
6/30/2021	10.15%	10.90%	730,286,000	417,603,000	1,645,858,000
6/30/2022	11.35%	12.10%	832,719,000	426,029,000	1,724,787,000
6/30/2023	12.38%	14.06%	933,854,000	435,036,000	1,806,430,000
6/30/2024	12.64%	14.32%	976,404,000	444,484,000	1,891,549,000
6/30/2025	13.33%	15.01%	1,046,035,000	454,358,000	1,980,597,000
6/30/2026	13.11%	14.80%	1,065,956,000	464,683,000	2,078,725,000
6/30/2027	12.89%	14.59%	1,074,086,000	475,600,000	2,177,289,000
6/30/2028	12.66%	14.39%	1,082,017,000	487,157,000	2,276,661,000
6/30/2029	12.44%	14.18%	1,091,310,000	499,322,000	2,376,186,000
6/30/2030	11.14%	12.90%	1,023,201,000	512,150,000	2,476,527,000
6/30/2031	10.22%	11.99%	962,561,000	525,713,000	2,576,853,000
6/30/2032	8.60%	10.39%	851,300,000	540,039,000	2,676,456,000
6/30/2033	7.50%	9.30%	762,498,000	555,163,000	2,775,053,000
6/30/2034	6.54%	8.34%	688,261,000	570,991,000	2,870,647,000
6/30/2035	6.08%	7.89%	653,127,000	587,467,000	2,967,075,000
6/30/2036	6.00%	7.54%	657,460,000	604,671,000	3,063,943,000
6/30/2037	6.00%	6.92%	670,660,000	622,670,000	3,161,335,000
6/30/2038	6.00%	6.95%	679,066,000	641,460,000	3,257,647,000

# Fiscal Year Contribution Projection Alternate #1



## Alternate #1 (14.5% return in 2019)

Fiscal Year Ending	Employer Contribution Rate - General and Firefighters	Employer Contribution Rate - Law Enforcement Officers	Employer Contributions	Member Contributions	Benefit Payments Val Year
6/30/2020	10.15%	10.90%	730,286,000	417,603,000	1,645,858,000
6/30/2021	11.35%	12.10%	832,719,000	426,029,000	1,724,787,000
6/30/2022	10.79%	12.47%	827,754,000	435,036,000	1,806,430,000
6/30/2023	10.21%	11.89%	803,760,000	444,484,000	1,891,549,000
6/30/2024	10.15%	11.83%	810,104,000	454,358,000	1,980,597,000
6/30/2025	9.31%	11.00%	773,478,000	464,683,000	2,078,725,000
6/30/2026	9.19%	10.89%	772,232,000	475,600,000	2,177,289,000
6/30/2027	9.07%	10.80%	781,635,000	487,157,000	2,276,661,000
6/30/2028	8.95%	10.69%	791,900,000	499,322,000	2,376,186,000
6/30/2029	7.75%	9.51%	724,623,000	512,150,000	2,476,527,000
6/30/2030	6.94%	8.71%	665,588,000	525,713,000	2,576,853,000
6/30/2031	6.00%	7.21%	599,583,000	540,039,000	2,676,456,000
6/30/2032	6.00%	6.22%	591,405,000	555,163,000	2,775,053,000
6/30/2033	6.00%	6.00%	591,287,000	570,991,000	2,870,647,000
6/30/2034	6.00%	6.04%	602,168,000	587,467,000	2,967,075,000
6/30/2035	6.00%	6.21%	623,406,000	604,671,000	3,063,943,000
6/30/2036	6.00%	6.02%	645,442,000	622,670,000	3,161,335,000
6/30/2037	6.00%	6.41%	661,478,000	641,460,000	3,257,647,000

# Asset and Liability Projection Baseline



## Baseline Projection (7% return in 2019)

Valuation Date	Market Value of Assets	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
12/31/2018	25,045,131,000	26,307,348,000	29,223,127,000	2,915,779,000	90.02%
12/31/2019	26,112,239,000	26,874,930,000	30,380,773,000	3,505,843,000	88.46%
12/31/2020	27,278,808,000	27,853,340,000	31,553,069,000	3,699,729,000	88.27%
12/31/2021	28,554,515,000	28,986,390,000	32,739,102,000	3,752,712,000	88.54%
12/31/2022	29,948,508,000	29,948,508,000	33,937,392,000	3,988,884,000	88.25%
12/31/2023	31,433,879,000	31,433,879,000	35,145,813,000	3,711,934,000	89.44%
12/31/2024	32,991,321,000	32,991,321,000	36,356,554,000	3,365,233,000	90.74%
12/31/2025	34,609,346,000	34,609,346,000	37,570,326,000	2,960,980,000	92.12%
12/31/2026	36,256,637,000	36,256,637,000	38,787,446,000	2,530,809,000	93.48%
12/31/2027	37,936,058,000	37,936,058,000	40,009,693,000	2,073,635,000	94.82%
12/31/2028	39,646,147,000	39,646,147,000	41,237,908,000	1,591,761,000	96.14%
12/31/2029	41,346,189,000	41,346,189,000	42,474,058,000	1,127,869,000	97.34%
12/31/2030	43,002,825,000	43,002,825,000	43,720,941,000	718,116,000	98.36%
12/31/2031	44,595,747,000	44,595,747,000	44,982,023,000	386,276,000	99.14%
12/31/2032	46,110,418,000	46,110,418,000	46,263,088,000	152,670,000	99.67%
12/31/2033	47,567,523,000	47,567,523,000	47,565,963,000	(1,560,000)	100.00%
12/31/2034	48,991,071,000	48,991,071,000	48,893,238,000	(97,833,000)	100.20%
12/31/2035	50,419,539,000	50,419,539,000	50,247,668,000	(171,871,000)	100.34%
12/31/2036	51,873,204,000	51,873,204,000	51,633,973,000	(239,231,000)	100.46%
12/31/2037	53,361,688,000	53,361,688,000	53,055,617,000	(306,071,000)	100.58%
12/31/2038	54,892,600,000	54,892,600,000	54,514,434,000	(378,166,000)	100.69%

# Asset and Liability Projection

## Alternate #1



### Alternate #1 (14.5% return in 2019)

Valuation Date	Market Value of Assets	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
12/31/2018	25,045,131,000	26,307,348,000	29,223,127,000	2,915,779,000	90.02%
12/31/2019	27,966,987,000	27,245,879,000	30,380,773,000	3,134,894,000	89.68%
12/31/2020	29,263,388,000	28,725,071,000	31,553,069,000	2,827,998,000	91.04%
12/31/2021	30,678,016,000	30,367,992,000	32,739,102,000	2,371,110,000	92.76%
12/31/2022	32,160,398,000	31,789,448,000	33,937,392,000	2,147,944,000	93.67%
12/31/2023	33,644,896,000	33,644,896,000	35,145,813,000	1,500,917,000	95.73%
12/31/2024	35,134,958,000	35,134,958,000	36,356,554,000	1,221,596,000	96.64%
12/31/2025	36,620,258,000	36,620,258,000	37,570,326,000	950,068,000	97.47%
12/31/2026	38,097,203,000	38,097,203,000	38,787,446,000	690,243,000	98.22%
12/31/2027	39,595,601,000	39,595,601,000	40,009,693,000	414,092,000	98.97%
12/31/2028	41,113,321,000	41,113,321,000	41,237,908,000	124,587,000	99.70%
12/31/2029	42,608,415,000	42,608,415,000	42,474,058,000	(134,357,000)	100.32%
12/31/2030	44,047,140,000	44,047,140,000	43,720,941,000	(326,199,000)	100.75%
12/31/2031	45,430,863,000	45,430,863,000	44,982,023,000	(448,840,000)	101.00%
12/31/2032	46,786,464,000	46,786,464,000	46,263,088,000	(523,376,000)	101.13%
12/31/2033	48,159,147,000	48,159,147,000	47,565,963,000	(593,184,000)	101.25%
12/31/2034	49,559,743,000	49,559,743,000	48,893,238,000	(666,505,000)	101.36%
12/31/2035	50,994,711,000	50,994,711,000	50,247,668,000	(747,043,000)	101.49%
12/31/2036	52,467,094,000	52,467,094,000	51,633,973,000	(833,121,000)	101.61%
12/31/2037	53,982,819,000	53,982,819,000	53,055,617,000	(927,202,000)	101.75%
12/31/2038	55,544,998,000	55,544,998,000	54,514,434,000	(1,030,564,000)	101.89%