



South Dakota Retirement System

Projected Funded Status as of June 30, 2018

June 13, 2018

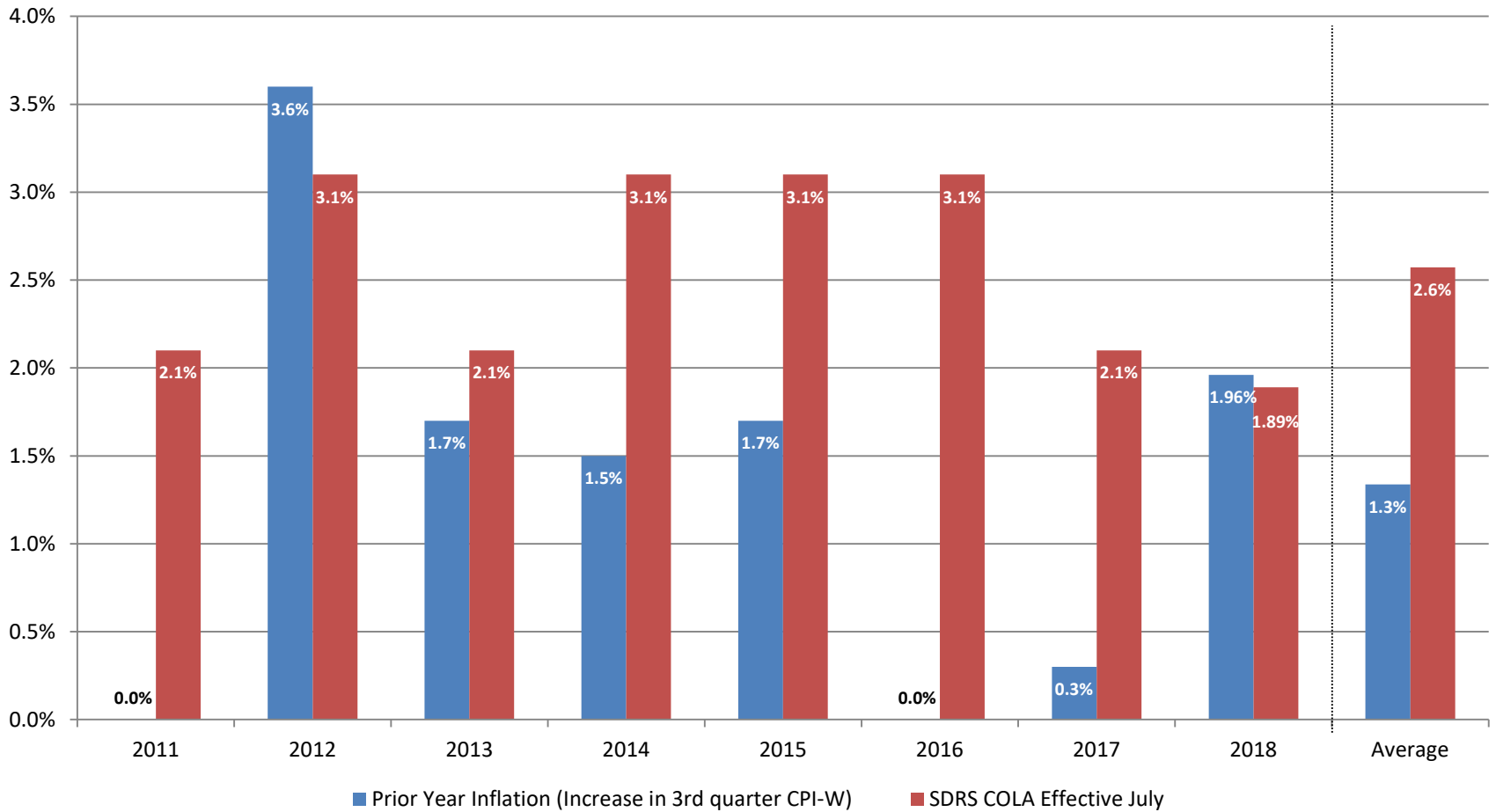


Projected Funded Status

- SDRS COLA will vary directly with both inflation and long-term affordability
- Under most circumstances, SDRS' Fair Value Funded Ratio (FVFR) is expected to remain at 100%
- Likelihoods are based on SDIC June, 2017 investment portfolio statistics (mean expected return of 6.10% with 15.4% one-year standard deviation)
- The following exhibits examine:
 - SDRS COLAs compared to inflation since 2010
 - Projected funded status at June 30, 2018 and maximum 2019 COLA
 - Estimates of 2020, 2021 and 2022 COLA ranges
 - Likelihoods of 2020, 2021, and 2022 COLA ranges
 - Estimates of 2022 COLAs and likelihoods of 2022 COLA ranges if 2018 baseline FVFR were 120%



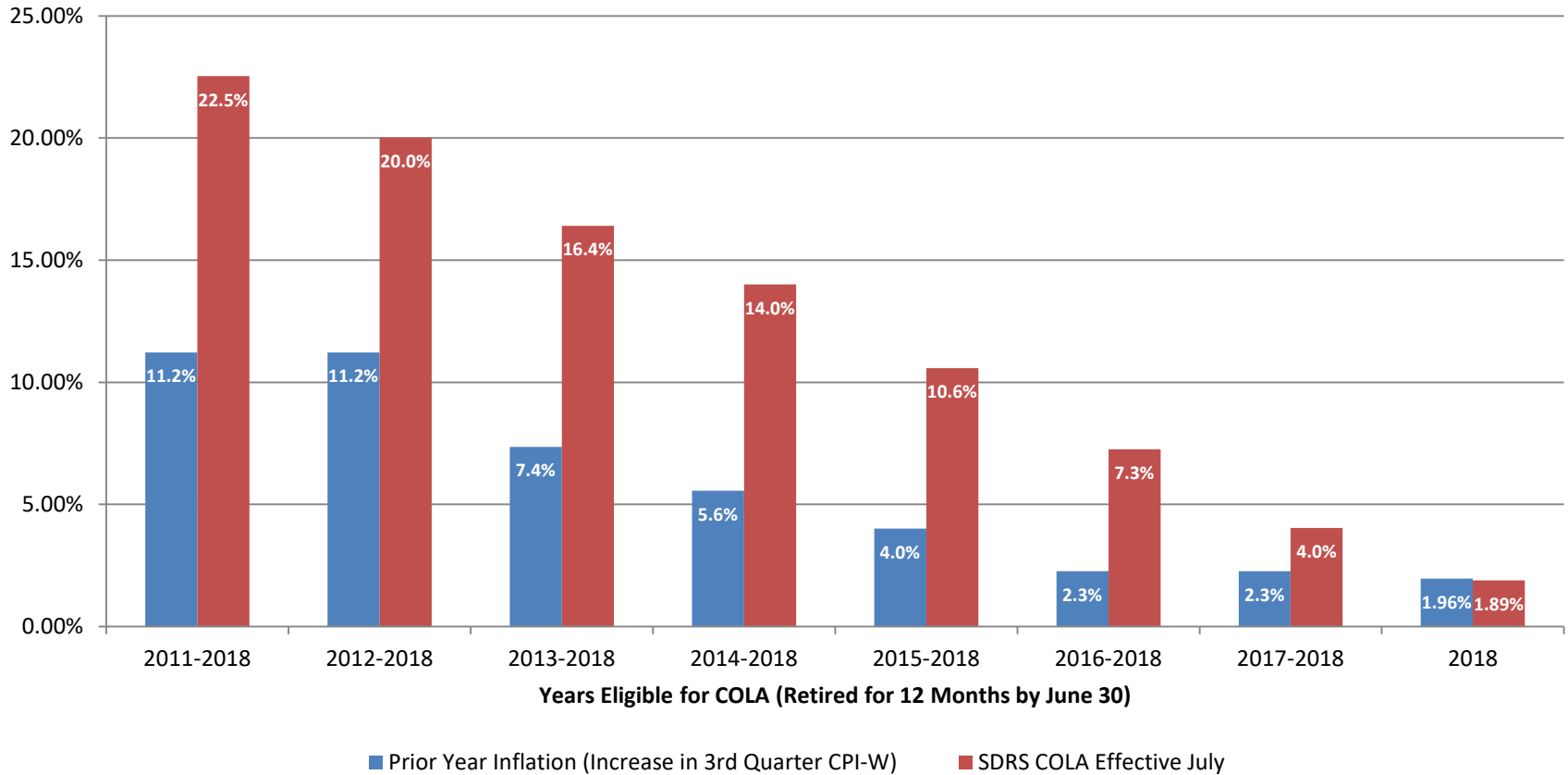
Inflation and SDRS COLAs Since 2010





Inflation and SDRS COLAs Since 2010

Cumulative Increases in Inflation and SDRS COLA Through July, 2018





Projected Funded Status as of June 30, 2018 and 2019 Maximum COLA⁽¹⁾

If Net Investment Return for FYE June 30, 2018 is:

Step 1:
Determine Baseline FVFR
(Using Baseline COLA assumption of 2.25%)

Step 2:
Determine Restricted Maximum COLA
(Resulting in FVFR of 100%)

Step 3:
Determine FVFR
(Using Baseline COLA or Restricted Maximum COLA, if applicable)

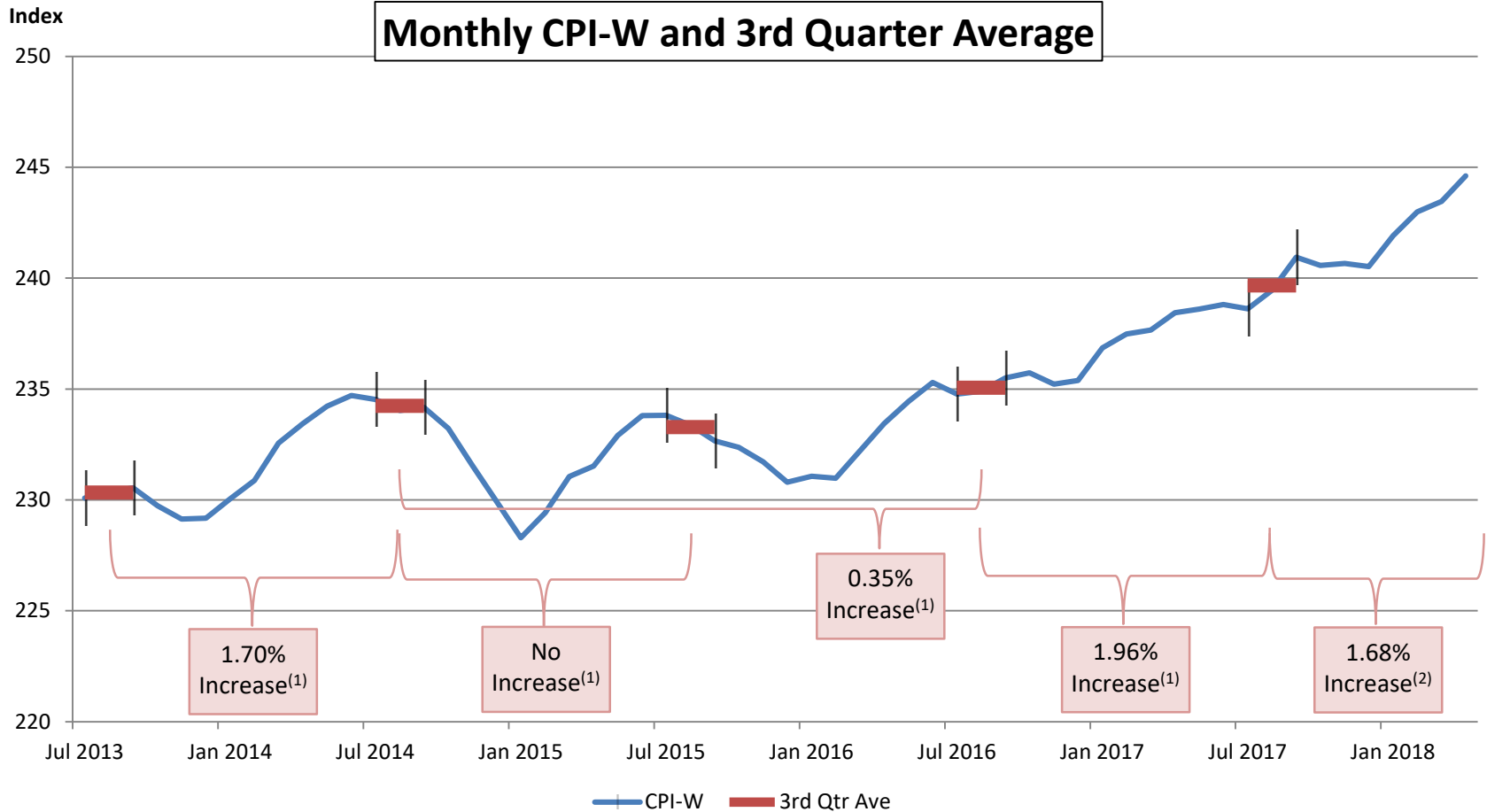
If Net Investment Return for FYE June 30, 2018 is:	Minimum Return to Avoid Corrective Actions	Step 1: Determine Baseline FVFR (Using Baseline COLA assumption of 2.25%)	Step 2: Determine Restricted Maximum COLA (Resulting in FVFR of 100%)	Step 3: Determine FVFR (Using Baseline COLA or Restricted Maximum COLA, if applicable)
(-7.1%)		84%	0.50%	100%
4.0%	Return Examples	94%	1.65%	100%
5.0%		95%	1.75%	100%
6.0%		96%	1.85%	100%
6.5% ⁽²⁾		97%	1.90%	100%
7.0%		97%	1.95%	100%
10.3%	Minimum Return for 100% FVFR with Baseline COLA	100%	Unrestricted: 3.5%	100%

(1) Before consideration of liability gains/losses for year ending June 30, 2018. June 30, 2017 Baseline FVFR was 96.4%.

(2) Assumed net investment return



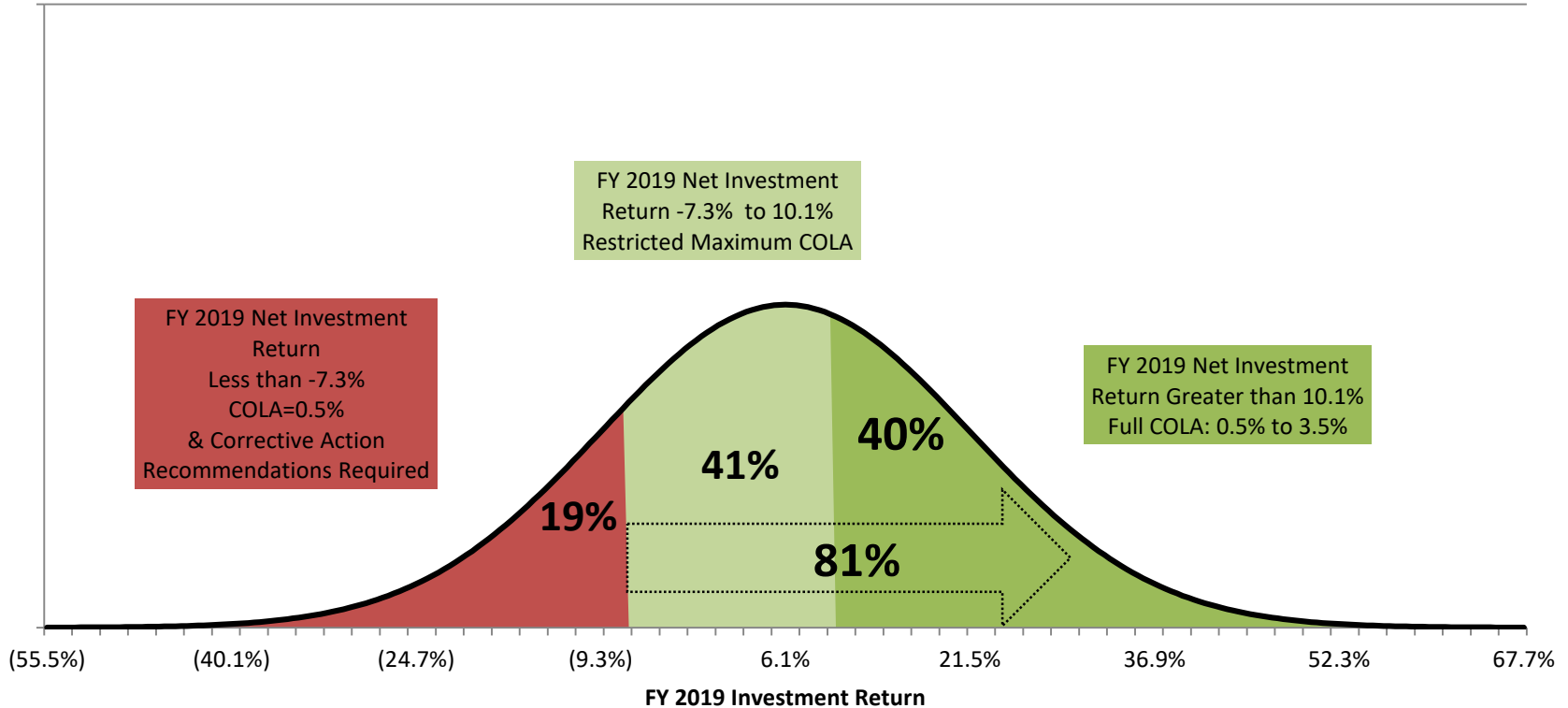
Inflation Measurement for Social Security and SDRS COLAs



- (1) Increase in the third calendar quarter average over the prior highest third calendar quarter average is the specified inflation measurement for the Social Security COLA effective the following January and the SDRS COLA effective the following July
- (2) Increase in most recent three-month average over July to September, 2017 average (through 7 months)



Projected 2020 SDRS COLA Range Assuming 6.5% FY18 Net Investment Return*

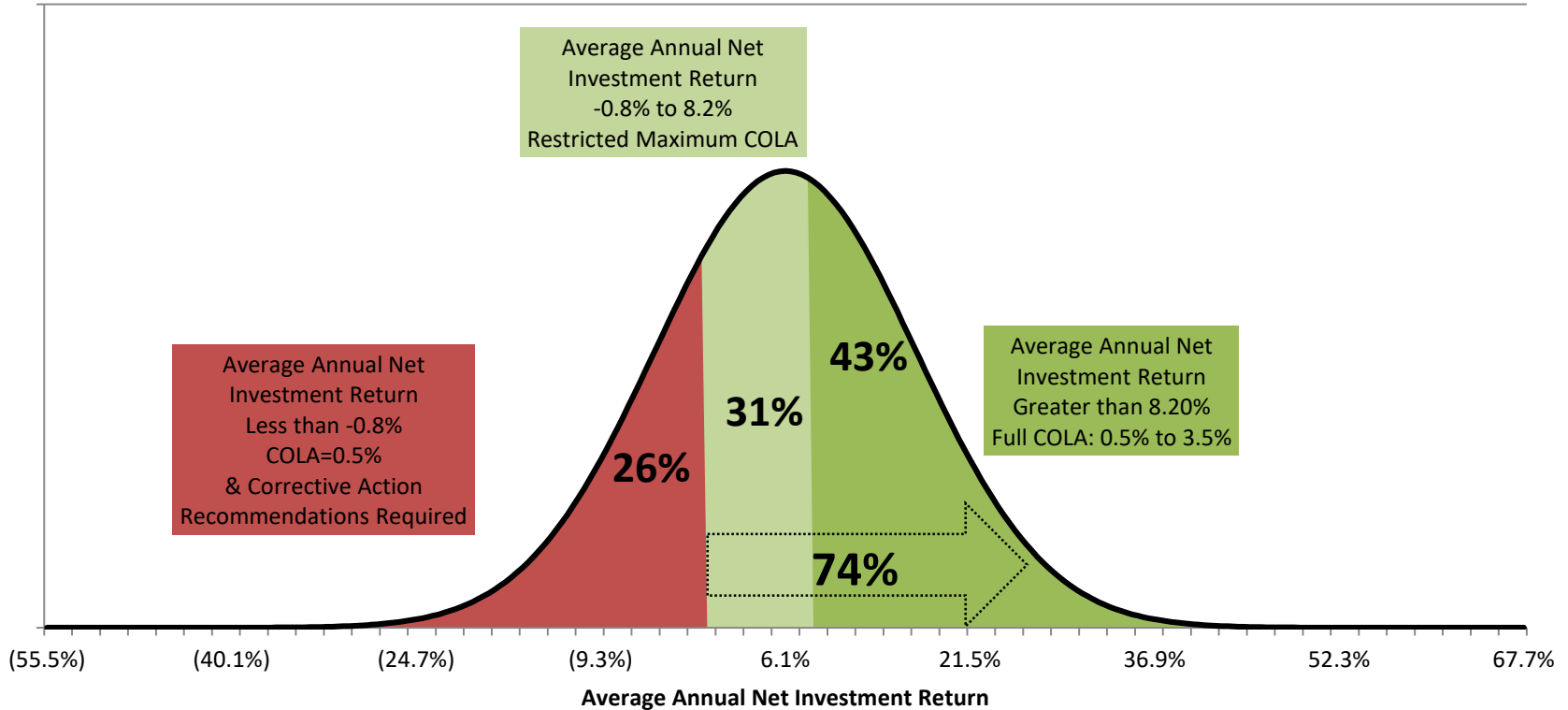


- Following an assumed net investment return of 6.5% for FY18, the likelihoods for 2020 COLA ranges, which are primarily driven by FY19 investment returns, are:
 - 40% likelihood that the baseline COLA will be payable (CPI-W between 0.5% and 3.5%)
 - 41% likelihood that the COLA will have a restricted maximum (CPI-W between 0.5% and the restricted maximum)
 - 19% likelihood that a 0.5% COLA will be payable and additional Corrective Action recommendations will be required

* Before consideration of liability gains/losses. Likelihoods based on SDIC 2017 investment portfolio statistics.



Projected 2021 SDRS COLA Range Assuming 6.5% FY18 Net Investment Return*

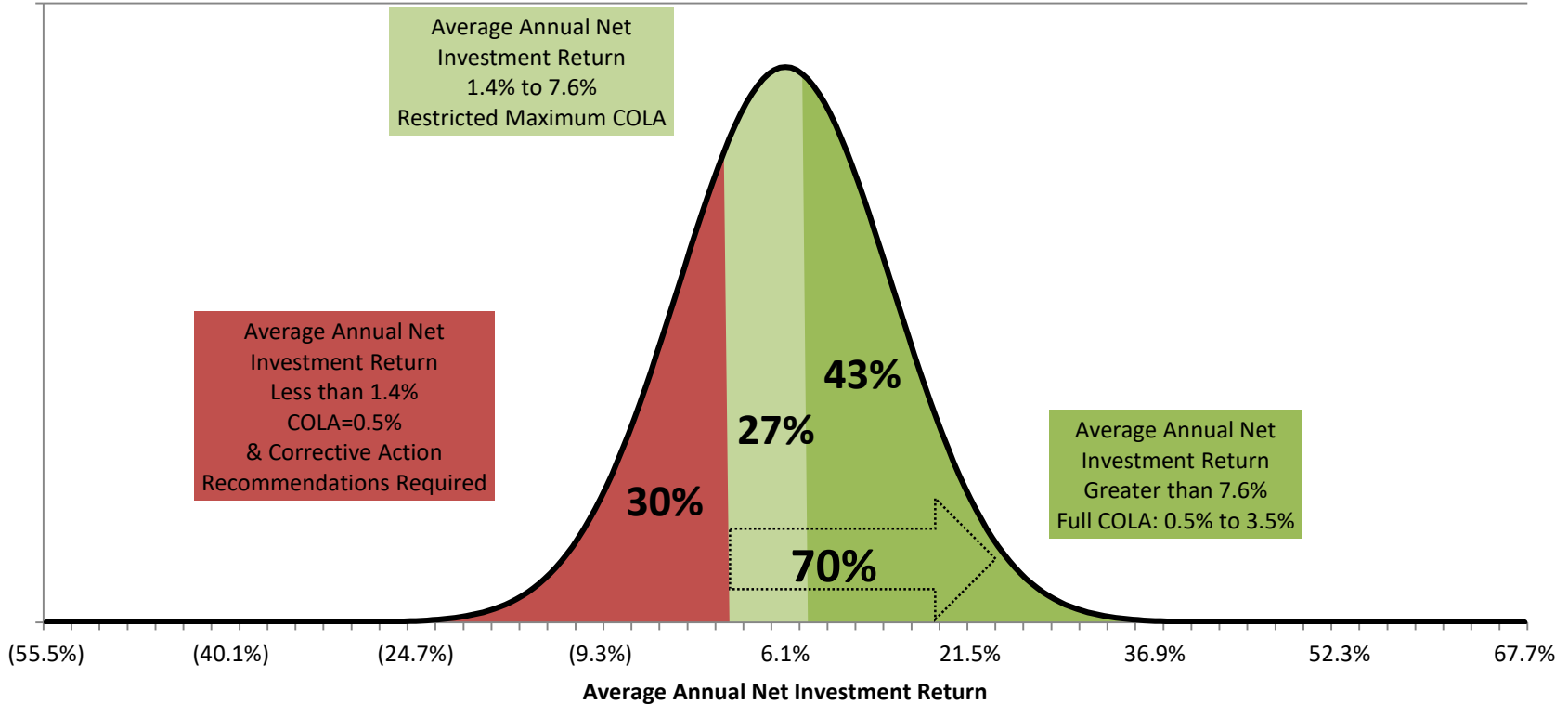


- Following an assumed net investment return of 6.5% for FY18, the likelihoods for 2021 COLA ranges, which are primarily driven by FY19 and FY20 investment returns, are:
 - 43% likelihood that the baseline COLA will be payable (CPI-W between 0.5% and 3.5%)
 - 31% likelihood that the COLA will have a restricted maximum (CPI-W between 0.5% and the restricted maximum)
 - 26% likelihood that a 0.5% COLA will be payable and additional Corrective Action recommendations will be required

* Before consideration of liability gains/losses. Likelihoods based on SDIC 2017 investment portfolio statistics. Assumes 2.25% annual inflation.



Projected 2022 SDRS COLA Range Assuming 6.5% FY18 Net Investment Return*

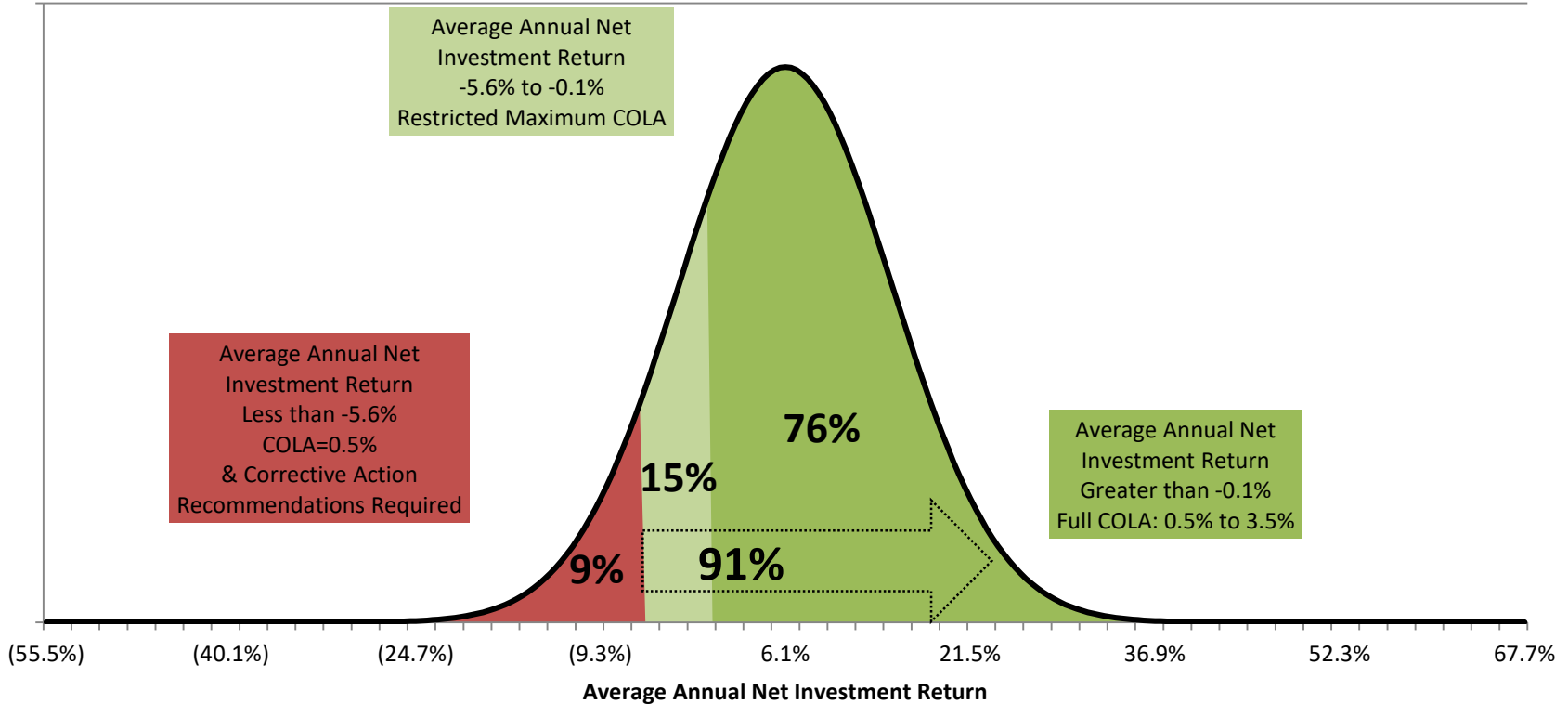


- Following an assumed net investment return of 6.5% for FY18, the likelihoods for 2022 COLA ranges, which are primarily driven by FY19, FY20, and FY21 investment returns, are:
 - 43% likelihood that the baseline COLA will be payable (CPI-W between 0.5% and 3.5%)
 - 27% likelihood that the COLA will have a restricted maximum (CPI-W between 0.5% and the restricted maximum)
 - 30% likelihood that a 0.5% COLA will be payable and additional Corrective Action recommendations will be required

* Before consideration of liability gains/losses. Likelihoods based on SDIC 2017 investment portfolio statistics. Assumes 2.25% annual inflation.



Projected 2022 SDRS COLA Range If 2018 Baseline FVFR = 120%*



- If the starting baseline FVFR is 120%, the likelihoods for 2022 COLA ranges, which are primarily driven by FY19, FY20, and FY21 investment returns, are:
 - 76% likelihood that the baseline COLA will be payable (CPI-W between 0.5% and 3.5%)
 - 15% likelihood that the COLA will have a restricted maximum (CPI-W between 0.5% and the restricted maximum)
 - 9% likelihood that a 0.5% COLA will be payable and additional Corrective Action recommendations will be required

* Before consideration of liability gains/losses. Likelihoods based on SDIC 2017 investment portfolio statistics. Assumes 2.25% annual inflation.



Summary

- FVFR is expected to be 100% at June 30, 2018 and the 2019 SDRS COLA is likely to be restricted based on investment returns to date
- Net FY18 returns greater than approximately 10% would result in an unrestricted 2019 COLA (inflation between 0.5% and 3.5%)
- Net FY18 returns less than approximately -7% would reduce the 2019 restricted maximum COLA to 0.5% and require corrective action recommendations
- Small Net Pension Asset under GASB is expected at June 30, 2018
- Assuming FY18 net investment returns remain at approximately 6.5%, the likelihood of additional required corrective action recommendations in the near future varies from approximately 19% (one year) to approximately 30% (three years)