

# Core Fund Annuity Adjustments and Effective Rate Projections

Employee Trust Funds Board

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Division of Trust Finance



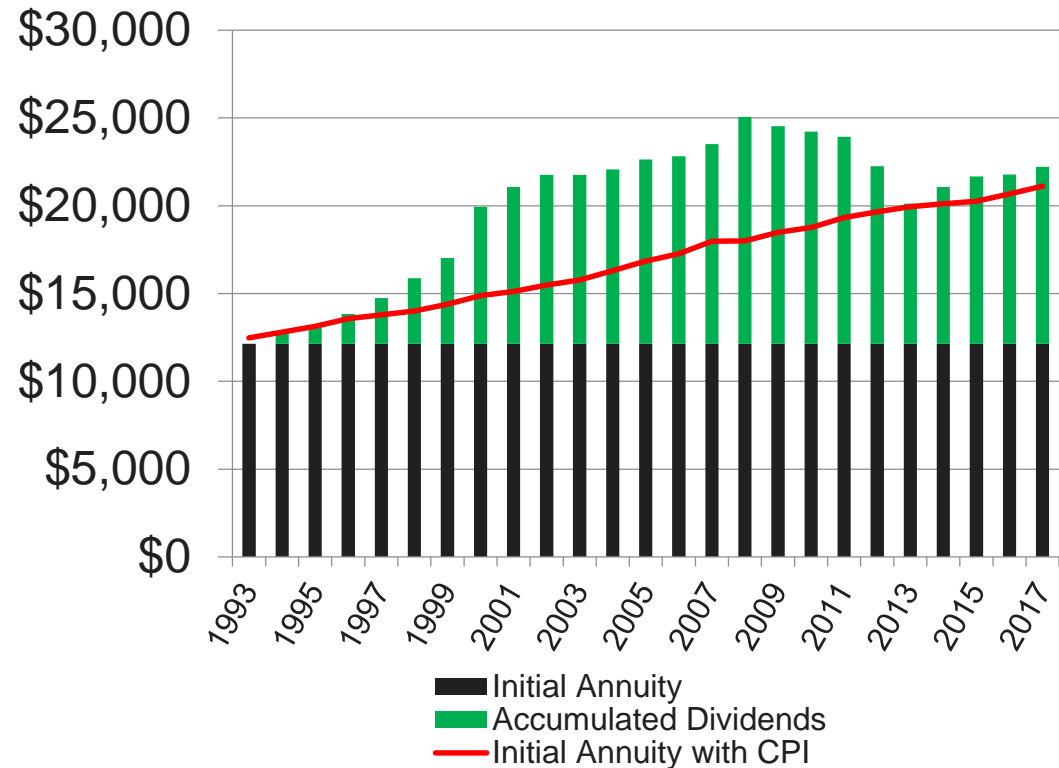
# Current Value of Annuities\*

If You Retired in	A \$1,000 Core Annuity is Receiving	The Annual Rate of Increase is	A \$1,000 Variable Annuity is Receiving	The Annual Rate of Increase is	The Annual Change in CPI is
2013	\$1,131	2.5%	\$1,474	8.1%	1.4%
2008	\$1,131	1.2%	\$1,173	1.6%	1.6%
2003	\$1,131	0.8%	\$1,778	3.9%	2.1%
1998	\$1,433	1.8%	\$1,347	1.5%	2.1%
1993	\$1,873	2.5%	\$2,297	3.4%	2.2%

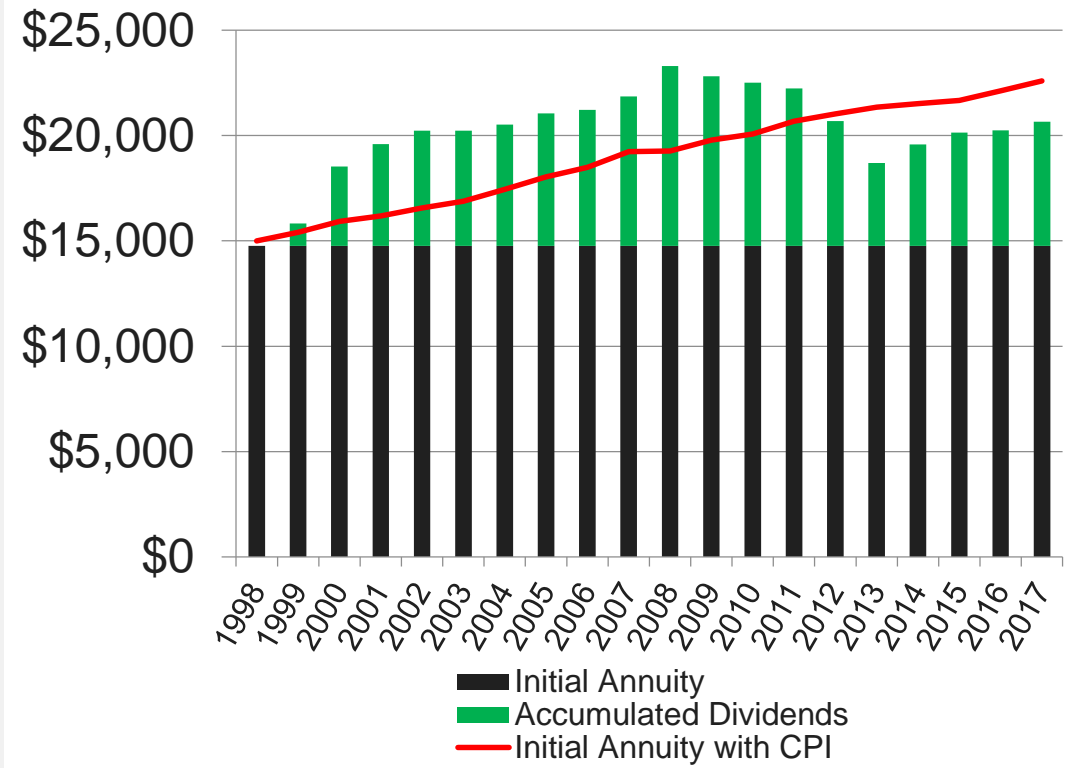
\*Including annuity adjustments to be made effective April 1, 2018

# A Look at Core Annuity Increases versus Cost of Living

## Change in Value of 1993 Annuity (2,973 annuitants)

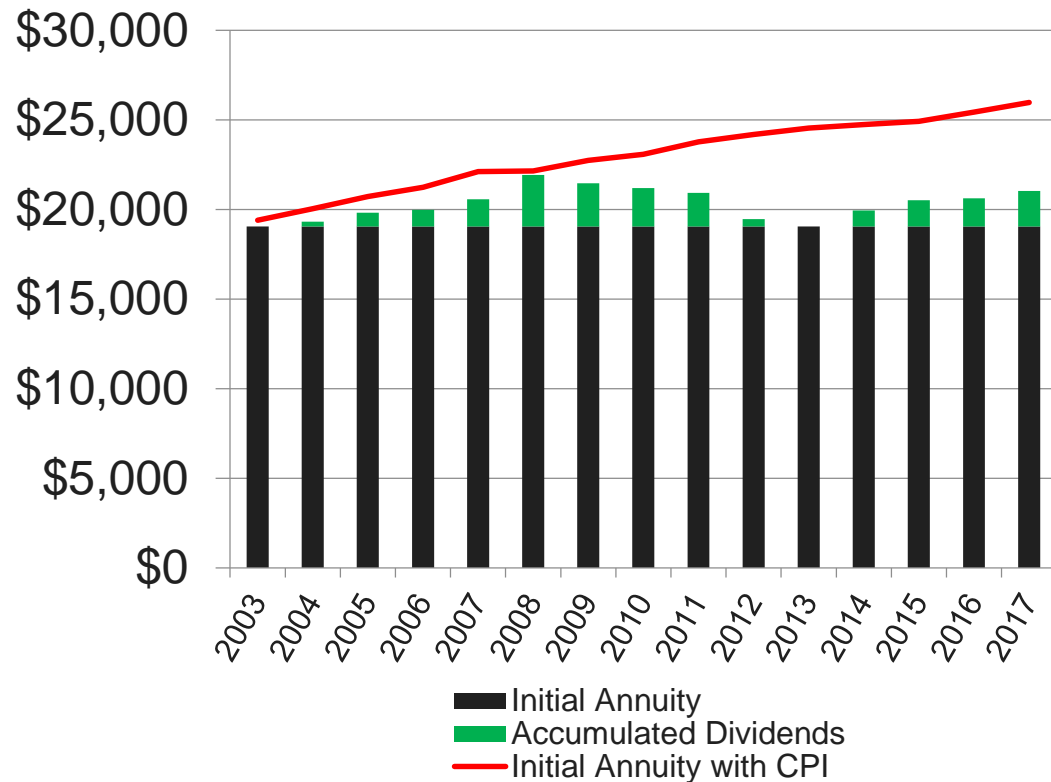


## Change in Value of 1998 Annuity (5,313 annuitants)

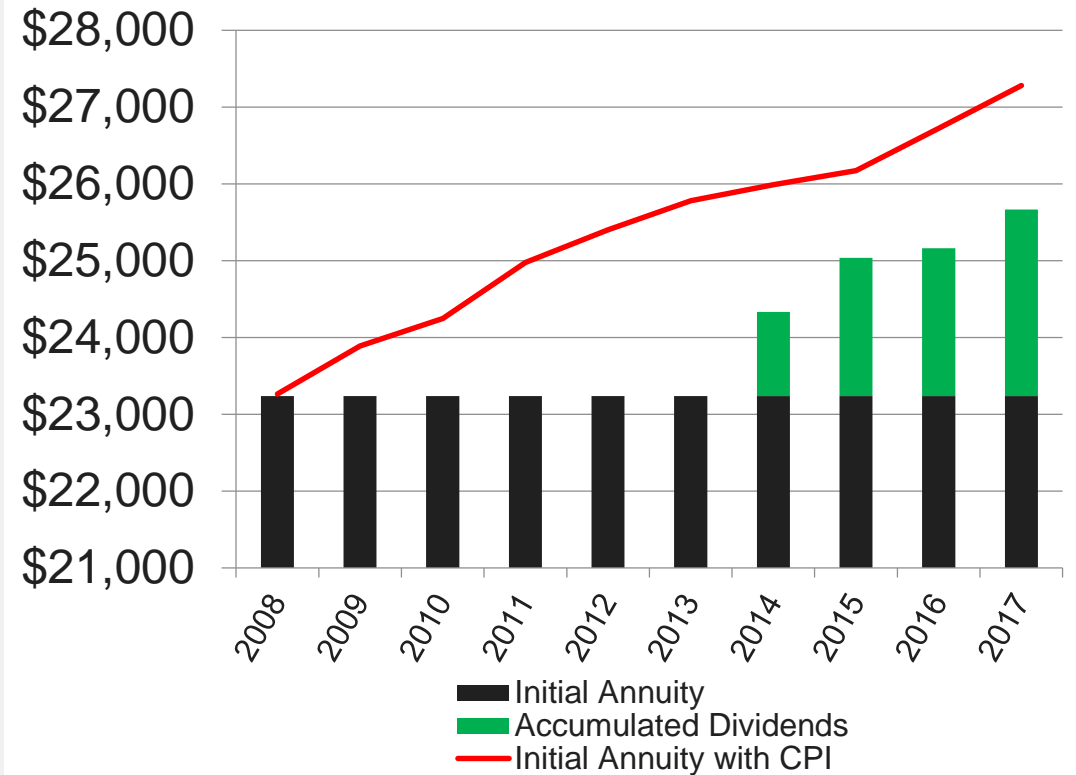


# A Look at Core Annuity Increases versus Cost of Living

## Change in Value of 2003 Annuity (7,179 annuitants)

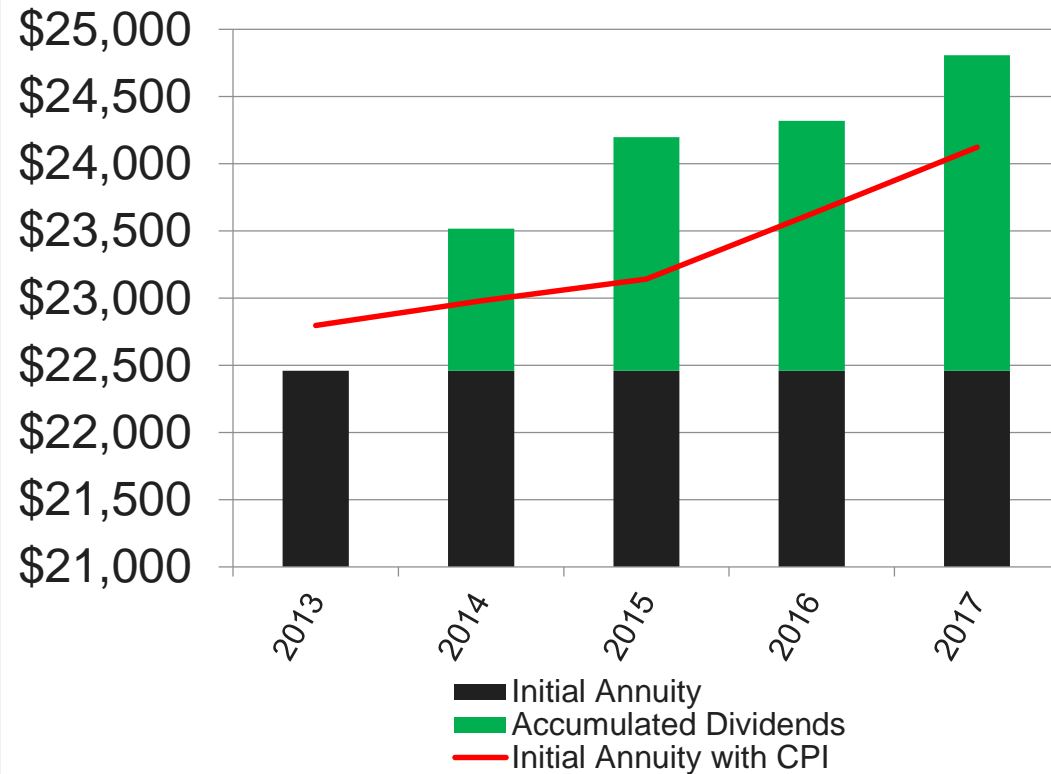


## Change in Value of 2008 Annuity (8,457 annuitants)

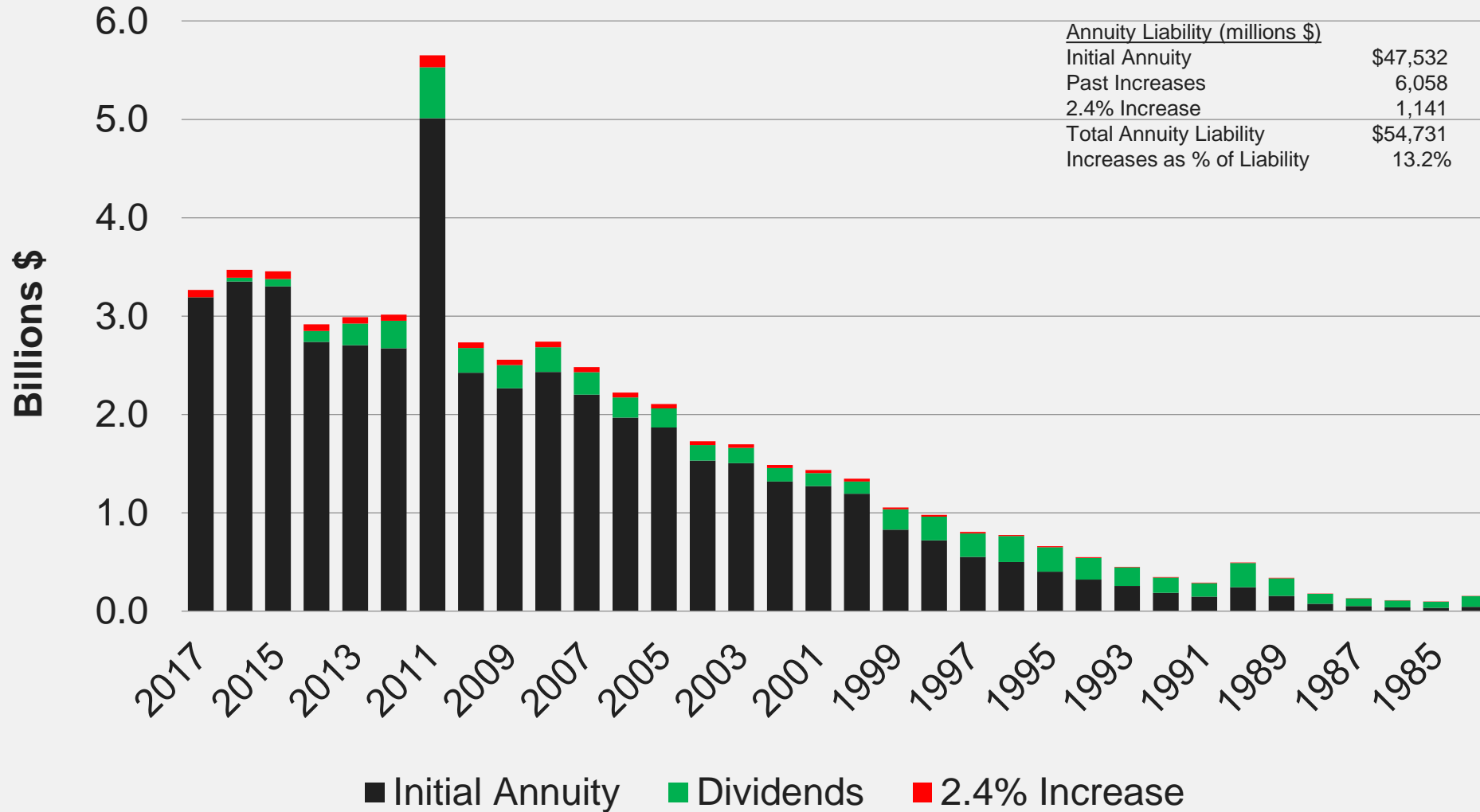


# A Look at Core Annuity Increases versus Cost of Living

**Change in Value of 2013 Annuity**  
(9,482 annuitants)



# Annuity Liability by Year of Inception





# Annuity Adjustment Projections

# Annuity Adjustment Projections

- Projections...not predictions.
- Only an actuarial valuation can accurately calculate the annuity adjustments.
- Useful for anticipating the magnitude, not exact amount, of future adjustments.



# Assumptions

- Based on 2017 Core Trust Fund net of fee investment returns.
- Annuities will be increased if annuity reserve surplus provides at least a 0.5% increase.
- Annuities will be reduced if annuity reserve shortfall would require at least a -0.5% adjustment.
- Negative adjustments can only reduce increases granted in prior years. A core annuity cannot be reduced below the original value.

# Assumptions (cont.)

- In calculating annuity adjustments, a 5.0% assumed investment return is used to fund the original benefit. Thus, in a world where experience matched assumptions each year perfectly, annuitants would receive a 2.2% adjustment each year (7.2% less 5.0%). We don't live in that world.
- 0.5% per year is reserved for mortality improvement and other actuarial adjustments and is not available for annuity adjustments.
- Includes 2014 - 2017 investment gains and losses carried forward in the Market Recognition Account (MRA).

# Market Recognition Account

- Investment gains / losses are “smoothed” through the Market Recognition Account (MRA):
  - The MRA is intended to give recognition to long-term changes in asset values while minimizing the impact of short-term fluctuations in the capital markets;
  - Investment gains equal to the assumed rate (7.2%) are recognized;
  - The difference between actual gains or losses and the assumed rate is spread equally over 5 years.

# Investment Gain/Loss to be Recognized In Future Years

Year Earned	Year to Be Recognized (millions \$)					Core Net of Fee Investment Return
	2017	2018	2019	2020	2021	
2018		?	?	?	?	?
2017	1,462	1,462	1,462	1,462	1,462	15.82%
2016	119	119	119	119		8.29%
2015	(1,344)	(1,344)	(1,344)			(.67%)
2014	(243)	(243)				5.40%
2013	953					13.18%
Totals	947	(6)	237	1,581	1,462	

# Result of 7.2% Investment Return in 2018 - 2021

	2017	2018	2019	2020	2021
SWIB Net Investment Return	15.82%	7.2%	7.2%	7.2%	7.2%
Effective Rate	8.5%	7.3% to 7.7%	7.6% to 8.0%	9.0% to 9.4%	8.8% to 9.2%
Average Annuity Adjustment	2.4%	1.6% to 2.0%	1.8% to 2.2%	3.1% to 3.5%	3.0% to 3.4%

# Result of 5% Investment Return in 2018 and 7.2% in 2019 - 2021

	2017	2018	2019	2020	2021
SWIB Net Investment Return	15.82%	5%	7.2%	7.2%	7.2%
Effective Rate	8.5%	6.8% to 7.2%	7.1% to 7.5%	8.5% to 8.9%	8.3% to 8.7%
Average Annuity Adjustment	2.4%	1.2% to 1.6%	1.3% to 1.7%	2.7% to 3.1%	2.5% to 2.9%

# Result of 0% Investment Return in 2018 and 7.2% in 2019 - 2021

	2017	2018	2019	2020	2021
SWIB Net Investment Return	15.82%	0%	7.2%	7.2%	7.2%
Effective Rate	8.5%	5.7% to 6.1%	6.0% to 6.4%	7.4% to 7.8%	7.3% to 7.7%
Average Annuity Adjustment	2.4%	0%	.7% to 1.1%	1.6% to 2.0%	1.5% to 1.9%

# Result of (5%) Investment Return in 2018 and 7.2% in 2019 - 2021

	2017	2018	2019	2020	2021
SWIB Net Investment Return	15.82%	(5%)	7.2%	7.2%	7.2%
Effective Rate	8.5%	4.7% to 5.1%	4.9% to 5.3%	6.3% to 6.7%	6.1% to 6.5%
Average Annuity Adjustment	2.4%	(.5%) to (.8%)	(.5%) to (.8%)	.5% to .9%	0% to .8%





**Questions?**

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# Thank you

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