Core Fund Annuity Adjustments and Effective Rate Projections

Joint Meeting of the Employee Trust Funds, Teachers Retirement and Wisconsin Retirement Boards March 25, 2021

Cindy Klimke-Armatoski, CPA Chief Trust Financial Officer

Division of Trust Finance



Current Value of Annuities*

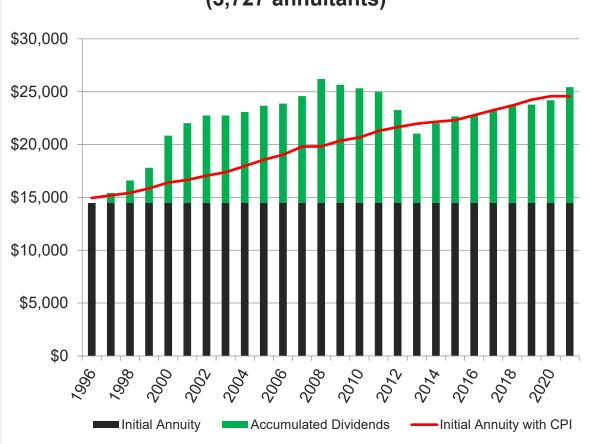
If You Retired in	A \$1,000 Core Annuity is Receiving	The Annual Rate of Increase is	A \$1,000 Variable Annuity is Receiving	The Annual Rate of Increase is	The Annual Change in CPI is
2016	\$1,116	2.2%	\$1,497	8.4%	2.0%
2011	\$1,209	1.9%	\$1,839	6.3%	1.7%
2006	\$1,209	1.3%	\$1,588	3.1%	1.9%
2001	\$1,209	1.0%	\$1,374	1.6%	2.0%
1996	\$1,758	2.3%	\$2,229	3.3%	2.1%

^{*}Including annuity adjustments (if any) to be made effective April 1, 2021

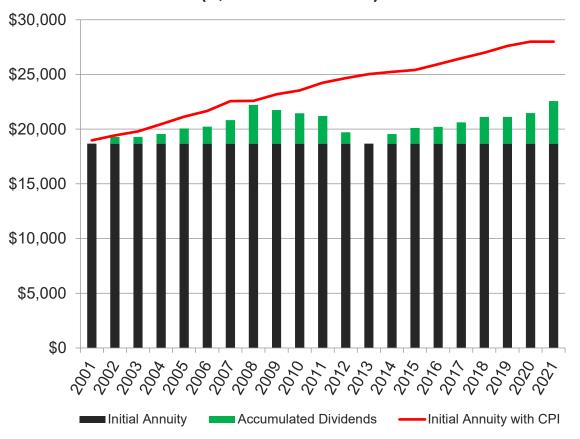


A Look at Core Annuity Increases versus Cost of Living

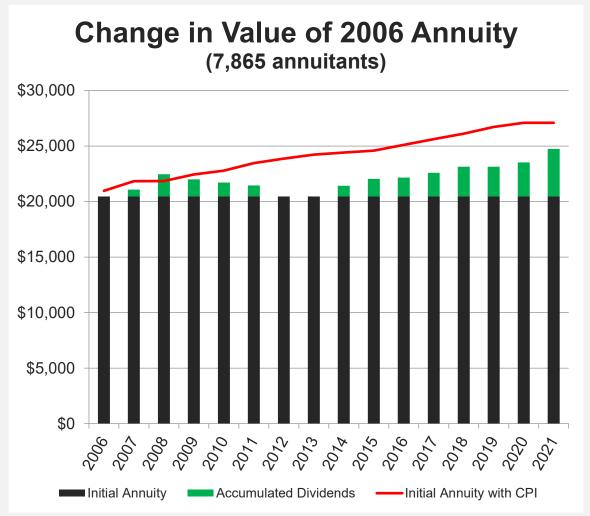


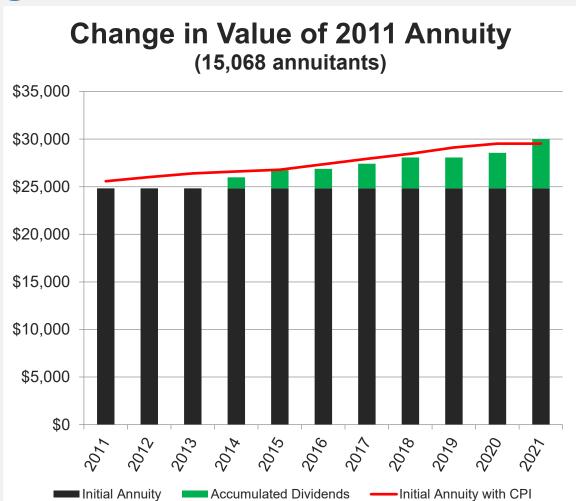


Change in Value of 2001 Annuity (6,285 annuitants)

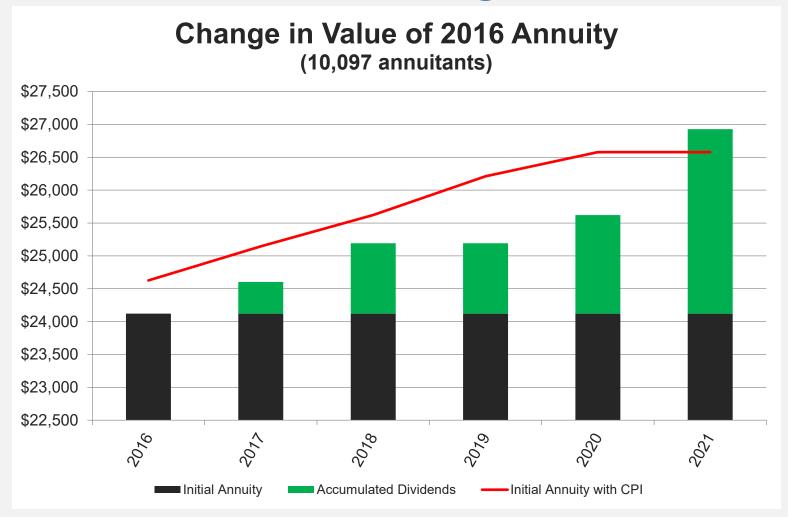


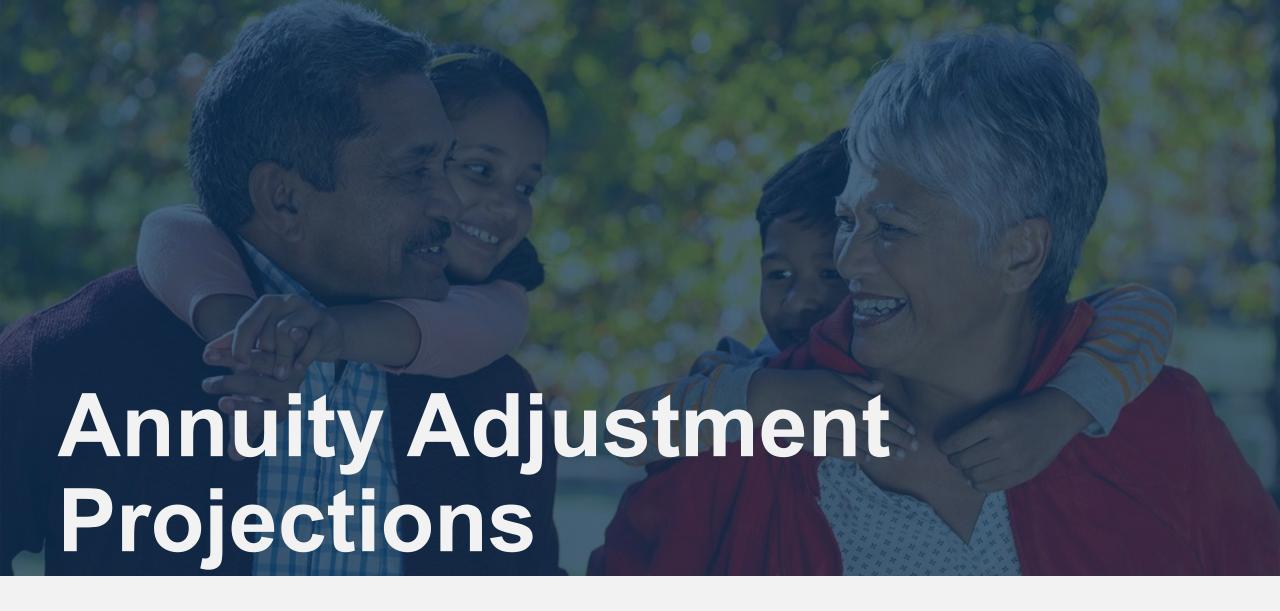
A Look at Core Annuity Increases versus Cost of Living





A Look at Core Annuity Increases versus Cost of Living





Annuity Adjustment Projections

- Projections only. Several assumptions and estimates used.
- Only an actuarial valuation can accurately calculate the annuity adjustments.
- Useful for anticipating the magnitude, not exact amount, of future adjustments.

The Basics

- 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.
- 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 2.0% adjustment each year (7.0% less 5.0%). We don't live in that world.

Assumptions

- Based on preliminary 2020 Core Trust Fund net of fee investment return.
- 0.2% per year is reserved for mortality improvement and is not available for annuity adjustments.
- The projections include 2017 2020 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 of 7.0% 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

		Core Net of Fee Investment				
Year Earned	2020	2021	2022	2023	2024	Return
2021		?	?	?	?	?
2020	1,774	1,774	1,774	1,774	1,774	15.21
2019	2,204	2,204	2,204	2,204		19.36
2018	(2,049)	(2,049)	(2,049)			(3.68%)
2017	1,461	1,461				15.82%
2016	120					8.29%
Totals	3,510	3,390	1,929	3,978	1,774	

Result of 7.0% Investment Return in 2021 - 2024

	2020	2021	2022	2023	2024
SWIB Net Investment Return	15.21%	7.0%	7.0%	7.0%	7.0%
Effective Rate	10.9%	10.5% to 10.9%	9.0% to 9.4%	10.7% to 11.1%	8.7% to 9.1%
Average Annuity Adjustment	5.1%	4.6% to 5.0%	3.2% to 3.6%	4.8% to 5.2%	3.0% to 3.4%
Dividend Liability*	~\$10.1b	~\$12.7b	~\$14.3b	~\$17.2	~\$18.7

^{*} Dividend liability is the present value of previously granted post-retirement annuity adjustments. Some refer to this as the 'dividend reserve' although it is not a separate reserve. The funds are part of the annuity reserve.



Result of 0% Investment Return in 2021 and 7.0% in 2022 - 2024

	2020	2021	2022	2023	2024
SWIB Net Investment Return	15.21%	0%	7.0%	7.0%	7.0%
Effective Rate	10.9%	8.9% to 9.3%	7.4% to 7.8%	9.3% to 9.7%	7.3% to 7.7%
Average Annuity Adjustment	5.1%	3.1% to 3.5%	1.7% to 2.1%	3.4% to 3.8%	1.6% to 2.0%
Dividend Liability*	~\$10.1b	~\$11.7b	~\$12.4b	~\$14.2b	~\$14.8b

^{*} Dividend liability is the present value of previously granted post-retirement annuity adjustments. Some refer to this as the 'dividend reserve' although it is not a separate reserve. The funds are part of the annuity reserve.



Result of -18% Investment Return in 2021 and 7.0% in 2022 - 2024

	2020	2021	2022	2023	2024
SWIB Net Investment Return	15.21%	(18%)	7.0%	7.0%	7.0%
Effective Rate	10.9%	4.7% to 5.1%	3.2% to 3.6%	5.0% to 5.4%	2.8% to 3.2%
Average Annuity Adjustment	5.1%	(.5%) to 0%	(2.3%) to (1.9%)	(.8%) to (.5%)	(2.7%) to (2.3%)
Dividend Liability*	~\$10.1b	~\$9.2b	~\$7.3b	~\$6.7b	~\$4.7b

^{*} Dividend liability is the present value of previously granted post-retirement annuity adjustments. Some refer to this as the 'dividend reserve' although it is not a separate reserve. The funds are part of the annuity reserve.





Thank you











608-266-3285