Core Fund Annuity Adjustments and Effective Rate Projections

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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
2017	\$1,176	3.3%	\$1,656	10.6%	2.9%
2012	\$1,298	2.6%	\$2,273	8.6%	2.1%
2007	\$1,298	1.8%	\$1,661	3.4%	2.2%
2002	\$1,298	1.3%	\$1,837	3.1%	2.3%
1997	\$1,771	2.3%	\$2,249	3.3%	2.3%

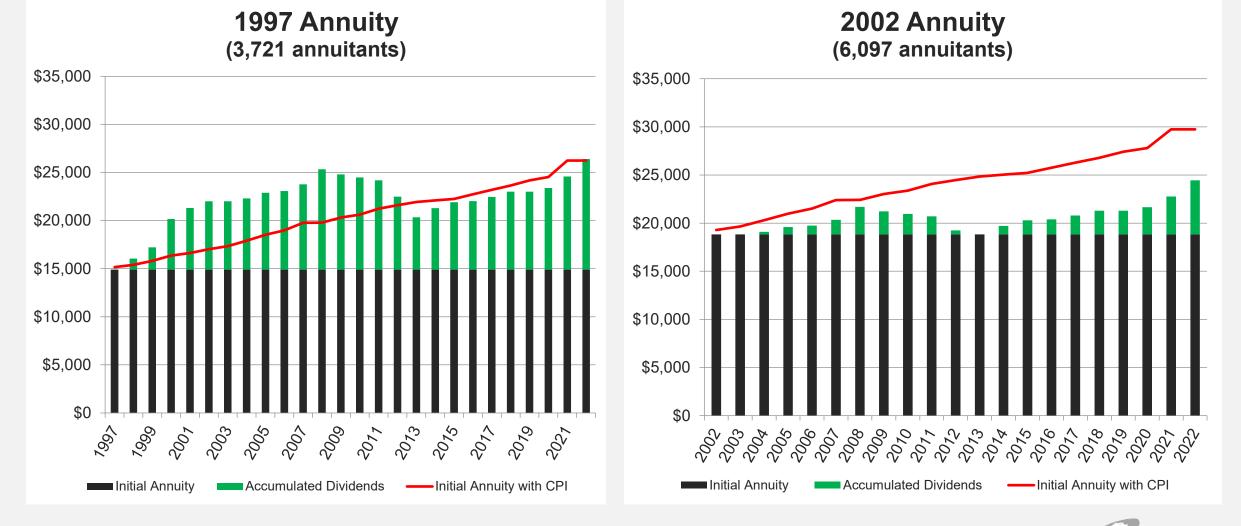
*Including annuity adjustments to be made effective April 1, 2022



A Look at Core Annuity Increases versus Cost of Living



Change in Value of 1997 and 2002 Annuity

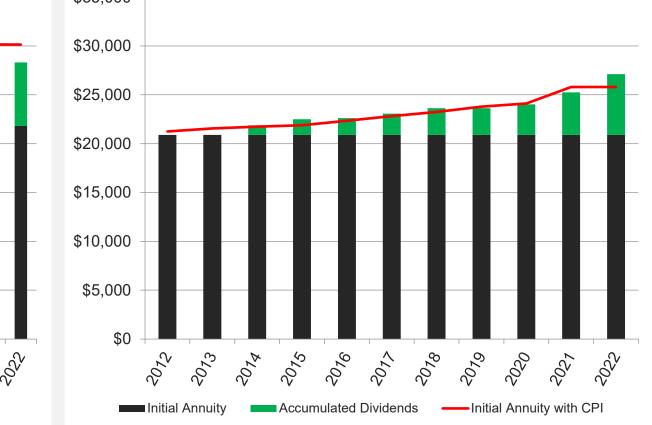


Change in Value of 2007 and 2012 Annuity

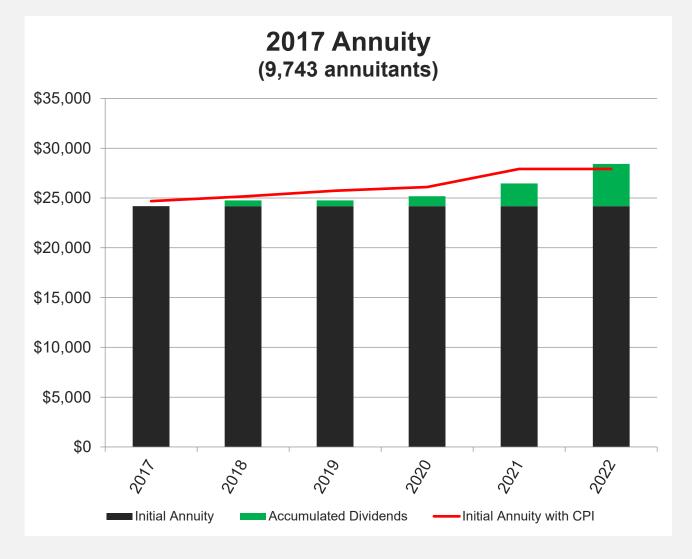
(8,041 annuitants) \$35,000 \$35,000 \$30,000 \$30,000 \$25,000 \$25,000 \$20,000 \$20,000 \$15,000 \$15,000 \$10,000 \$10,000 \$5,000 \$5,000 \$0 \$0 2075 2010 2017 2075 2076 201> <03 2072 2073 2014 2076 <00> ²⁰⁰8 5000 2078 2072 2073 2073 2021 202 Accumulated Dividends Initial Annuity with CPI Initial Annuity

2007 Annuity

2012 Annuity (9,376 annuitants)



Change in Value of 2017 Annuity



Core Fund Annuity Adjustment Projections – March 24, 2022



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Annuity Adjustment Projections



Disclaimers

- 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 1.8% adjustment each year (6.8% less 5.0%). We don't live in that world.



Assumptions

- Based on preliminary 2021 Core Trust Fund net of fee investment return.
- Based on most recent WRS experience study (2018-2020 period), no longer reserving a percentage for mortality improvement.
- The projections include 2018 2021 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 6.8% will be recognized beginning with 2022;
 - 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	2021	2022	2023	2024	2025	Return
2022		?	?	?	?	?
2021	2,495	2,495	2,495	2,495	2,495	16.89%
2020	1,774	1,774	1,774	1,774		15.21%
2019	2,204	2,204	2,204			19.36%
2018	(2,049)	(2,049)				(3.68%)
2017	1,461					15.82%
Totals (may not add due to rounding)	5,885	4,424	6,472	4,268	2,495	





Result of 6.8% Investment Return in 2022 - 2025

	2021	2022	2023	2024	2025
SWIB Net Investment Return	16.89%	6.8%	6.8%	6.8%	6.8%
Effective Rate	12.9%	11.0% to 11.4%	12.5% to 12.9%	10.4% to 10.8%	9.0% to 9.4%
Average Annuity Adjustment	7.4%	5.5% to 5.9%	6.9% to 7.3%	5.1% to 5.5%	3.6% to 4.0%
Dividend Liability*	~\$14.3b	~\$17.5b	~\$21.8b	~\$24.7b	~\$26.3b

* 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 2022 and 6.8% in 2023 - 2025

	2021	2022	2023	2024	2025
SWIB Net Investment Return	16.89%	0%	6.8%	6.8%	6.8%
Effective Rate	12.9%	9.3% to 9.7%	11.0% to 11.4%	9.0% to 9.4%	7.6% to 8.0%
Average Annuity Adjustment	7.4%	4.1% to 4.5%	5.4% to 5.8%	3.6% to 4.0%	2.3% to 2.7%
Dividend Liability*	~\$14.3b	~\$16.4b	~\$19.6b	~\$21.5b	~\$22.2b

* 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 2022 and 6.8% in 2023 - 2025

	2021	2022	2023	2024	2025
SWIB Net Investment Return	16.89%	(18%)	6.8%	6.8%	6.8%
Effective Rate	12.9%	5.0% to 5.4%	6.7% to 7.1%	4.7% to 5.1%	3.1% to 3.5%
Average Annuity Adjustment	7.4%	(.5%) to 0%	1.6% to 2.0%	(.5%) to 0%	(2.2%) to (1.8%)
Dividend Liability*	~\$14.3b	~\$13.6b	~\$13.9b	~\$13.1b	~\$11.1b

* 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.





Questions?

Thank you









608-266-3285 1-877-533-5020