## Core Fund Annuity Adjustments and Effective Rate Projections

## Employee Trust Funds Board

 March 26, 2020
## Current Value of Annuities*

| If You <br> Retired in | A \$1,000 Core <br> Annuity is <br> Receiving | The Annual <br> Rate of <br> Increase is | $\mathbf{A} \$ 1,000$ Variable <br> Annuity is <br> Receiving | The Annual <br> Rate of Increase <br> is | The Annual <br> Change in CPI is |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2015 | $\$ 1,068$ | $1.3 \%$ | $\$ 1,259$ | $4.7 \%$ | $1.8 \%$ |
| 2010 | $\$ 1,150$ | $1.4 \%$ | $\$ 1,806$ | $6.1 \%$ | $1.8 \%$ |
| 2005 | $\$ 1,150$ | $0.9 \%$ | $\$ 1,448$ | $2.5 \%$ | $2.0 \%$ |
| 2000 | $\$ 1,161$ | $0.7 \%$ | $\$ 1,082$ | $.4 \%$ | $2.1 \%$ |
| 1995 | $\$ 1,766$ | $2.3 \%$ | $\$ 2,347$ | $3.5 \%$ | $2.2 \%$ |

[^0]
## A Look at Core Annuity Increases versus Cost of Living



Change in Value of 2000 Annuity
(6,306 annuitants)


## A Look at Core Annuity Increases versus Cost of Living



Change in Value of 2010 Annuity
(8,318 annuitants)


## A Look at Core Annuity Increases versus Cost of Living

Change in Value of 2015 Annuity (10,262 annuitants)


## Annuity Adjustment Projections

## 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 2019 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 2016-2019 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

|  | Year to Be Recognized <br> (millions \$) |  |  |  |  | Core Net of <br> Fee |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Earned | 2019 | 2020 | 2021 | 2022 | 2023 | Investment <br> Return |
| 2020 |  | $?$ | $?$ | $?$ | $?$ | $?$ |
| 2019 | 2,204 | 2,204 | 2,204 | 2,204 | 2,204 | 19.36 |
| 2018 | $(2,048)$ | $(2,048)$ | $(2,048)$ | $(2,048)$ |  | $(3.68 \%)$ |
| 2017 | 1,461 | 1,461 | 1,461 |  |  | $15.82 \%$ |
| 2016 | 119 | 119 |  |  |  | $8.29 \%$ |
| 2015 | $(1,344)$ |  |  |  |  |  |
| Totals | 392 | 1,736 | 1,617 | 156 | 2,204 |  |

## Result of 7.0\% Investment Return in 2020-2023

|  | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| SWIB Net Investment Return | $19.36 \%$ | $7.0 \%$ | $7.0 \%$ | $7.0 \%$ | $7.0 \%$ |
| Effective Rate | $7.7 \%$ | $8.9 \%$ to $9.3 \%$ | $8.8 \%$ to $9.2 \%$ | $7.3 \%$ to $7.7 \%$ | $9.2 \%$ to $9.6 \%$ |
| Average Annuity Adjustment | $1.7 \%$ | $3.0 \%$ to $3.4 \%$ | $3.2 \%$ to $3.6 \%$ | $1.8 \%$ to $2.2 \%$ | $3.5 \%$ to $3.9 \%$ |

## Result of 0\% Investment Return in 2020 and $7.0 \%$ in 2021-2023

|  | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| SWIB Net Investment Return | $19.36 \%$ | $0 \%$ | $7.0 \%$ | $7.0 \%$ | $7.0 \%$ |
| Effective Rate | $7.7 \%$ | $7.4 \%$ to $7.8 \%$ | $7.2 \%$ to $7.6 \%$ | $5.8 \%$ to $6.2 \%$ | $7.7 \%$ to $8.1 \%$ |
| Average Annuity Adjustment | $1.7 \%$ | $1.6 \%$ to $2.0 \%$ | $1.7 \%$ to $2.1 \%$ | $0 \%$ to $.8 \%$ | $2.0 \%$ to $2.4 \%$ |

## Result of -12\% Investment Return in 2020 and 7.0\% in 2021-2023

|  | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| SWIB Net Investment Return | $19.36 \%$ | $(12 \%)$ | $7.0 \%$ | $7.0 \%$ | $7.0 \%$ |
| Effective Rate | $7.7 \%$ | $4.7 \%$ to $5.1 \%$ | $4.5 \%$ to $4.9 \%$ | $2.9 \%$ to $3.3 \%$ | $4.9 \%$ to $5.3 \%$ |
| Average Annuity Adjustment | $1.7 \%$ | $(.8 \%)$ to $0 \%$ | $(.9 \%)$ to $(.5 \%)$ | $(2.4 \%)$ to $(2.0 \%)$ | $(.7 \%)$ to $0 \%$ |

Questions?

## Thank you





[^0]:    *Including annuity adjustments (if any) to be made effective April 1, 2020

