# Core Fund Annuity Adjustment Projections 

Joint Meeting

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## Current Value of Annuities*

| If You <br> Retired <br> in | A \$1,000 <br> Core <br> Annuity is <br> Receiving | The <br> Annual <br> Rate of <br> Increase is | A \$1,000 <br> Variable <br> Annuity is <br> Receiving | The <br> Annual <br> Rate of <br> Increase is | The <br> Annual <br> Change in <br> CPI is |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2010 | $\$ 1,077$ | $1.5 \%$ | $\$ 1,435$ | $7.5 \%$ | $1.7 \%$ |
| 2005 | $\$ 1,077$ | $0.7 \%$ | $\$ 1,150$ | $1.4 \%$ | $2.1 \%$ |
| 2000 | $\$ 1,087$ | $0.6 \%$ | $\$ 860$ | $(1.0 \%)$ | $2.2 \%$ |
| 1995 | $\$ 1,655$ | $2.5 \%$ | $\$ 1,865$ | $3.2 \%$ | $2.3 \%$ |
| 1990 | $\$ 2,051$ | $2.9 \%$ | $\$ 2,117$ | $3.1 \%$ | $2.5 \%$ |

[^0]
## Change in Value of 1990 Annuity

(4,156 annuitants)


## Change in Value of 1995 Annuity

(4,217 annuitants)


Change in Value of 2000 Annuity
(7,087 annuitants)


## Change in Value of 2005 Annuity

(8,147 annuitants)


## Change in Value of 2010 Annuity

 (8,393 annuitants)

## Annuity Liability by Year of Inception



## Annuity Adjustment Projections

## Assumptions

- Based on 2014 actual Core Trust Fund investment returns.
- Includes 2011-2014 investment gains and losses carried forward in the Market Recognition Account (MRA).
- 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.


## Assumptions (cont.)

- $0.4 \%$ per year is used for administrative expenses, primarily SWIB investment expenses
- $0.4 \%$ per year is reserved for mortality improvement and other actuarial adjustments and is not available for annuity adjustments.
- Negative adjustments can only reduce increases granted in prior years. A core annuity cannot be reduced below the original value.


## 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.


## There is a $\$ 2.6$ billion investment gain to be recognized in future years, \$574 million of it in 2015

|  | Year to Be Recognized <br> (millions \$) |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Year <br> Earned | 2014 | 2015 | 2016 | 2017 | 2018 |
| 2015 |  | ??? | ??? | ??? | ??? |
| 2014 | $(238)$ | $(238)$ | $(238)$ | $(238)$ | $(238)$ |
| 2013 | 955 | 955 | 955 | 955 |  |
| 2012 | 793 | 793 | 793 |  |  |
| 2011 | $(936)$ | $(936)$ |  |  |  |
| 2010 | 399 |  |  |  |  |
| Totals | 973 | 574 | 1,510 | 717 | $(238)$ |

The deferred investment gains will be allocated approximately $55 \%$ to the annuity reserve, $27 \%$ to the employer reserve and $18 \%$ to the member reserve.

## 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


## A 7.2\% investment return in 2015 will result in an annuity adjustment between $2.3 \%$ and $2.7 \%$

|  | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| SWIB Net Investment <br> Return | $5.9 \%$ | $7.2 \%$ | $7.2 \%$ | $7.2 \%$ | $7.2 \%$ |
| Effective Rate | $8.7 \%$ | $7.9 \%$ to <br> $8.3 \%$ | $8.9 \%$ to <br> $9.3 \%$ | $7.9 \%$ to <br> $8.3 \%$ | $6.7 \%$ to <br> $7.1 \%$ |
| Annuity Adjustment | $2.9 \%$ | $2.3 \%$ to <br> $2.7 \%$ | $3.1 \%$ to <br> $3.5 \%$ | $2.2 \%$ to <br> $2.6 \%$ | $1.1 \%$ to <br> $1.5 \%$ |

## A 0\% investment return in 2015 will result in an annuity adjustment between 0.9\% and 1.1\%

|  | 2014 | $\mathbf{2 0 1 5}$ | 2016 | 2017 | 2018 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| SWIB Net Investment <br> Return | $5.9 \%$ | $0.0 \%$ | $7.2 \%$ | $7.2 \%$ | $7.2 \%$ |
| Effective Rate | $8.7 \%$ | $6.4 \%$ to <br> $6.8 \%$ | $7.4 \%$ to <br> $7.8 \%$ | $6.3 \%$ to <br> $6.7 \%$ | $5.1 \%$ to <br> $5.5 \%$ |
| Annuity Adjustment | $2.9 \%$ | $0.9 \%$ to <br> $1.3 \%$ | $1.7 \%$ to <br> $2.1 \%$ | $0.7 \%$ to <br> $1.1 \%$ | $0.0 \%$ |

## A -8.1\% investment return in 2015 will result in a negative annuity adjustment

|  | 2014 | 2015 | 2016 | 2017 | 2018 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| SWIB Net Investment <br> Return | $5.9 \%$ | $-8.1 \%$ | $7.2 \%$ | $7.2 \%$ | $7.2 \%$ |
| Effective Rate | $8.7 \%$ | $4.6 \%$ to <br> $5.0 \%$ | $5.6 \%$ to <br> $6.0 \%$ | $4.5 \%$ to <br> $4.9 \%$ | $3.1 \%$ to <br> $3.5 \%$ |
| Annuity Adjustment | $2.9 \%$ | $-0.5 \%$ | $0.0 \%$ | $0.0 \%$ | $-2.3 \%$ <br> to |
|  |  |  |  |  | $-2.7 \%$ |

## Questions?


[^0]:    * Including annuity adjustments to be made effective April 1, 2015

