# Core Fund Annuity Adjustment Projections 

## Joint Information Meeting March 7, 2013

## 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 <br> is | A \$1,000 <br> Variable <br> Annuity <br> is <br> Receiving | The <br> Annual <br> Rate of <br> Increase <br> is | The <br> Annual <br> Change <br> in CPI is |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | $\$ 1,000^{* *}$ | $0 \% * *$ | $\$ 796$ | $(4.5 \%)$ | $1.8 \%$ |
| 2003 | $\$ 1,000^{* *}$ | $0 \% * *$ | $\$ 1,207$ | $1.9 \%$ | $2.4 \%$ |
| 1998 | $\$ 1,267$ | $1.6 \%$ | $\$ 914$ | $(0.6 \%)$ | $2.4 \%$ |
| 1993 | $\$ 1,656$ | $2.6 \%$ | $\$ 1,558$ | $2.2 \%$ | $2.4 \%$ |
| 1988 | $\$ 2,206$ | $3.2 \%$ | $\$ 2,196$ | $3.2 \%$ | $2.8 \%$ |

## Change in Value of 1988 Annuity (2,607 annuitants)



## Change in Value of 1993 Annuity

 (3,684 annuitants)

## Change in Value of 1998 Annuity

 (6,024 annuitants)

## Change in Value of 2003 Annuity (7,512 annuitants)



## Change in Value of 2008 Annuity

 (8,643 annuitants)

## Annual Annuities by Year of Inception As of December 31, 2012



## Annuity Adjustment Projections

## Assumptions

- Based on 2012 actual Core Trust Fund investment returns.
- Includes 2009-2012 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 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 $\$ 2.5$ billion investment

 gain to be recognized in future years, $\$ 1.5$ billion of it in 2013|  | Year to Be Recognized (millions \$) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year Earned | 2012 | 2013 | 2014 | 2015 | 2016 |
| 2013 |  | ??? | ??? | ??? | ??? |
| 2012 | 794 | 794 | 794 | 794 | 794 |
| 2011 | 936 | 936 | 936 | 936 |  |
| 2010 | 399 | 399 | 399 |  |  |
| 2009 | 1,288 | 1,288 |  |  |  |
| 2008 | 5,370 |  |  |  |  |
| Totals | 3,825 | 1,545 | 257 | 142 | 794 |

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 2013 will result in an annuity adjustment between 3.3\% and 3.7\%

|  | 2012 | 2013 | 2014 | 2015 | 2016 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SWIB Net Investment Return | 13.7\% | 7.2\% | 7.2\% | 7.2\% | 7.2\% |
| Effective Rate | 2.2\% | $\begin{aligned} & 9.7 \% \\ & \text { to } \\ & 10.1 \% \end{aligned}$ | $\begin{aligned} & 7.8 \% \\ & \text { to } \\ & 8.2 \% \end{aligned}$ | $\begin{aligned} & 7.3 \% \\ & \text { to } \\ & 7.7 \% \end{aligned}$ | $\begin{aligned} & 8.5 \% \\ & \text { to } \\ & 8.9 \% \end{aligned}$ |
| Average Annuity Adjustment | -3.0\% | $\begin{aligned} & 3.3 \% \\ & \text { to } \\ & 3.7 \% \end{aligned}$ | $\begin{aligned} & 1.9 \% \\ & \text { to } \\ & 2.3 \% \end{aligned}$ | $\begin{aligned} & 1.4 \% \\ & \text { to } \\ & 1.8 \% \end{aligned}$ | $\begin{gathered} 2.4 \% \\ \text { to } \\ 2.8 \% \end{gathered}$ |
| Maximum Annuity Adjustment | -9.6\% | n/a | n/a | n/a | n/a |

## A 0\% investment return in 2013 will result in an annuity adjustment between 1.9\% and 2.3\%

|  | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 6}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| SWIB Net <br> Investment Return | $13.7 \%$ | $0 \%$ | $7.2 \%$ | $7.2 \%$ | $7.2 \%$ |
| Effective Rate | $2.2 \%$ | $8.1 \%$ <br> to <br> $8.5 \%$ | $6.3 \%$ <br> to <br> $6.7 \%$ | $5.7 \%$ <br> to <br> $6.1 \%$ | $7.0 \%$ <br> to |
| 7.4\% |  |  |  |  |  |

## Questions?

