Benefit Accumulation Fund
Interest Rate Credit
Recommendation for 2016

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Overall Fund Return for 2016

- GRS recommends crediting the Benefit Accumulation Fund (BAF) interest equal to 6.73%
- This will be credited based on the beginning of year BAF balance for each city
- This amount was determined after all administrative and investment expenses have been paid and the statutory interest credit requirements have been fulfilled
- This will maintain the $100 million Interest Reserve Account
“Smoothed” 2016 Rate of Return

- The contribution rates are determined based on a 10-year smoothing process.
- The smoothing calculation produces an Actuarial Rate of Return of approximately 6.44% for 2016 on the BAF.
  - $611 million in deferred losses remain as of December 31, 2016 (roughly 2.4% of Fund).
  - A credit on the BAF in 2017 of approximately 9.4% would offset these deferred losses.
  - This actuarial return of 6.44% will produce an increase in contribution rates of 0.08% for 2018 from investment performance (will vary slightly by city).
Yields based on Market Value of Assets

5.91% average compound return (on market value) over last 10 years

<table>
<thead>
<tr>
<th>Year</th>
<th>Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>7.8%</td>
</tr>
<tr>
<td>2008</td>
<td>-1.3%</td>
</tr>
<tr>
<td>2009</td>
<td>10.0%</td>
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<tr>
<td>2010</td>
<td>9.0%</td>
</tr>
<tr>
<td>2011</td>
<td>2.3%</td>
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<tr>
<td>2012</td>
<td>9.9%</td>
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<tr>
<td>2013</td>
<td>9.7%</td>
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<tr>
<td>2014</td>
<td>5.7%</td>
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<tr>
<td>2015</td>
<td>0.1%</td>
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<tr>
<td>2016*</td>
<td>6.7%</td>
</tr>
</tbody>
</table>

* Estimated

** Assumption was 7% from 2007 - 2015
* Estimated

- AVA is currently 102.4% of MVA, was 102.5% last year

AVA was Book Value prior to 2009
Contributions vs. Benefits and Refunds

* Includes member and employer contributions
** Includes administrative and investment expenses
GRS’ 2016 BAF Interest Credit Recommendation

- GRS recommends crediting the BAF with an interest credit of 6.73% which represents the investment income remaining after all administrative and investment expenses have been paid and the statutory requirements have been fulfilled, includes estimated 4\textsuperscript{th} quarter private investment fund valuation adjustments and maintains the $100 million Interest Reserve Account as of December 31, 2016 as a percentage of the beginning of year BAF fund.
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