Employees’ Retirement System of the State of Hawaii

2020 Valuation Results
January 11, 2021
Agenda

• Purpose of Valuation
• Valuation Results
• Details on Funding Period
• Comparison of Projections to Previous Years
• Projections Under Alternative Scenarios
• Closing Remarks
Purpose of the Actuarial Valuation

• The primary purpose of the annual actuarial valuation is to either (1) set or (2) assess the adequacy of the contribution funding policy
  – “Funding” or “contribution allocation procedure”

• The funding policy is the pattern of contributions, not necessarily the contributions in a given year

• For ERS, the funding policy has mostly a fixed contribution rate from members and employers
  – Maximum Funding Period of 30 Years

• Thus, for ERS, the primary purpose of the annual actuarial valuation is to assess whether the current funding policy is expected to fully amortize the UAAL over a period of 30 years or less
Projection of Funding Period from 2016 Valuation vs Actual Valuation Outcomes

2016 was the year used by the fiscal notes for Act 17 (SB 936). Thus it is the baseline that can be used to monitor progress compared to the original projections.

Assumes all assumptions met, including a 7.00% return each year on the current *smoothed* value of assets.
### Act 17 (SB 936) Contribution Rates

<table>
<thead>
<tr>
<th>Employer Contribution Rates by Fiscal Years</th>
<th>General Employees</th>
<th>Special Categories (Police Officers, Firefighters and Corrections Officers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/1/2016 – 6/30/2017</td>
<td>17.00%</td>
<td>25.00%</td>
</tr>
<tr>
<td>7/1/2017 – 6/30/2018</td>
<td>18.00%</td>
<td>28.00%</td>
</tr>
<tr>
<td>7/1/2018 – 6/30/2019</td>
<td>19.00%</td>
<td>31.00%</td>
</tr>
<tr>
<td>7/1/2019 – 6/30/2020</td>
<td>22.00%</td>
<td>36.00%</td>
</tr>
<tr>
<td><strong>7/1/2020 – 6/30/2021</strong></td>
<td><strong>24.00%</strong></td>
<td><strong>41.00%</strong></td>
</tr>
</tbody>
</table>

The 26 year estimated funding period assumes that the current contribution rates will continue for the next 26 years. If the contribution rates are reduced (even temporarily) this will extend the funding period perhaps beyond the 30-year statutory requirement.
## 2020 Preliminary Actuarial Valuation Results

<table>
<thead>
<tr>
<th>Valuation Year</th>
<th>2018</th>
<th>2019</th>
<th>Expected 2020</th>
<th>Actual 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on Smoothed Asset Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UAAL ($ Billions)*</td>
<td>$13.41</td>
<td>$14.07</td>
<td>$14.33</td>
<td>$14.65</td>
</tr>
<tr>
<td>Actuarial Funded Ratio*</td>
<td>55.2%</td>
<td>55.2%</td>
<td>56.1%</td>
<td>55.2%</td>
</tr>
<tr>
<td>Funding Period in years**</td>
<td>25</td>
<td>26</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>Based on Market Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actuarial Funded Ratio*</td>
<td>55.5%</td>
<td>54.9%</td>
<td>55.8%</td>
<td>52.5%</td>
</tr>
<tr>
<td>Funding Period in years**</td>
<td>25</td>
<td>26</td>
<td>25</td>
<td>28</td>
</tr>
</tbody>
</table>


*Preliminary valuation results

**Based on open group projection, recognizing new benefits for members hired after June 30, 2012
# By Employee Group

<table>
<thead>
<tr>
<th>Valuation Year</th>
<th>2018</th>
<th>2019</th>
<th>Expected 2020</th>
<th>Actual 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Police and Fire Employees (11% of Payroll)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UAAL ($ Billions)*</td>
<td>$2.31</td>
<td>$2.50</td>
<td>$2.56</td>
<td>$2.66</td>
</tr>
<tr>
<td>Actuarial Funded Ratio*</td>
<td>59.0%</td>
<td>58.7%</td>
<td>59.7%</td>
<td>58.6%</td>
</tr>
<tr>
<td>Funding Period in years**</td>
<td>26</td>
<td>28</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td><strong>All Other Employees (89% of Payroll)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UAAL ($ Billions)</td>
<td>$11.09</td>
<td>$11.57</td>
<td>$11.77</td>
<td>$11.99</td>
</tr>
<tr>
<td>Actuarial Funded Ratio*</td>
<td>54.3%</td>
<td>54.3%</td>
<td>55.2%</td>
<td>54.3%</td>
</tr>
<tr>
<td>Funding Period in years**</td>
<td>25</td>
<td>25</td>
<td>24</td>
<td>25</td>
</tr>
</tbody>
</table>


*Preliminary valuation results

**Based on open group projection, recognizing new benefits for members hired after June 30, 2012
Sources of Impact

• **Investments** underperformed 7.00% assumption on market basis
  – Smoothing technique will defer some of underperformance into future years (approximately $900m)
  – Loss on actuarial value of assets of almost $300 million

• **Liabilities** grew faster than expected
  – Primarily due to salary increases larger than current expectations for Police/Fire Employees (1.9% larger than expected)
  – Small gain on liabilities for All Other employees group

• **Contributions** in dollars are expected to be modestly higher due to salary increases and head count increases for both groups
  – However, much of this data is through March 31st. The future counts and amounts could be damped by the impact from COVID-19 pandemic and possible hiring freezes or furloughs.
2020 return and averages below are based on preliminary financial results:

- 5.2% average return for 5-year period ending June 30, 2020
- 7.9% average return for 10-year period ending June 30, 2020
- 6.1% average return for 15-year period ending June 30, 2020
Impact of New Benefit Tiers:
All Other Employees: Counts by group and by age

There are 25,362 Post 2012 Hires, approximately 41% of the active membership.
Impact of New Benefit Tiers:

*All Other Employees: Liability* by group and by age

Post 2012 Hires represent $727 million in liability, approximately 2.8% of the total liability.
Projection of UAAL (June 30, 2020)

Projections are based on smoothed value of assets as of the valuation date and assumed 7% return on assets in all future years.
History of Funded Ratio

Funded Ratio is Actuarial Value of Assets divided by Actuarial Accrued Liabilities

Actual

Restated based on Current Assumptions
Projection of Funded Ratio from 2019 Valuation

Assumes all assumptions met, including a 7.00% return each year on the current *smoothed* value of assets
Assumes all assumptions met, including a 7.00% return each year on the current *smoothed* value of assets
Projection of Funding Period
Sensitivity from Investment Returns

Based on 2020 Valuation (7% Actual Returns on Market Value)
Based on 2020 Valuation (6% Actual Returns on Market Value)
Based on 2020 Valuation (5% Actual Returns on Market Value)
Stress Test Summary

• Actuarial valuation results show System is on target to be fully funded in less than 30 years
  – Primarily due to legislated employer contribution increases

• Stress tests show that System is sustainable in a low return environment
  – Although date of achieving full funded status would be extended
Valuation Summary

• While it does not show in the current UAAL and funded ratio, the current actuarial assumptions and the contribution commitment from Act 17 (SB 936) have materially strengthened the outlook for ERS.

• The scheduled employer contribution rates are expected to be adequate to satisfy Hawaii Revised Statutes §88-122(e)(1), even with substantial adverse experience.

• However, all of the positive outlook assumes the scheduled contribution rates occur and investment income objectives are achieved. It is imperative that the currently scheduled funding strategies are implemented and sustained.

• UAAL is anticipated to grow until the funding period reaches 20 years (approximately 2026).