

LEOFF 2 Actuarial Valuation and Economic Experience Study Preview

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*Presentation to:
LEOFF 2 Board*



Office of the State Actuary
"Supporting financial security for generations."

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Today's Presentation

- Purpose of actuarial valuation
 - Preliminary results for membership data and plan assets
- Purpose of an economic experience study
 - Determine whether assumptions remain reasonable or should be changed
 - Analyze past experience, future expectations, and conditions that led to certain experience
- No action required today - informational only



Purpose Of An Actuarial Valuation

- Update contribution rates based on new data, assets, and legislation
- Check funding progress
 - Are we on track with our systematic actuarial funding plan?
- Certify the underlying data, assumptions, and methods are reasonable and conform with current actuarial standards of practice
- *June 30, 2016, Actuarial Valuation Report* still preliminary
 - “Off-cycle” valuation - not used for contribution rate-setting
 - Current rates adopted through 2017-19 Biennium

Change In Participant Data From Last Valuation

LEOFF 2			
	2015	2016 Preliminary	Difference
Number of Actives	17,019	17,186	167
Average Annual Salary	\$102,411	\$103,947	\$1,536
Average Attained Age	43.6	43.5	(0.1)
Average Service	14.7	14.5	(0.2)
Number of Annuitants	3,710	4,259	549

Change In Assets From Last Valuation

- Market Value of Assets (MVA) reported by WSIB
- Calculate 2016 asset gain (or loss) based on 7.5% expected return

LEOFF 2			
		2016	
<i>(Dollars in Millions)</i>	2015	Preliminary Difference	
Market Value (MV)	\$9,833	\$10,194	\$361
Contributions Less Disbursements*	\$151	\$118	(\$33)
Investment Return	\$430	\$244	(\$186)
Investment Gain/(Loss)**	(\$266)	(\$497)	(\$231)
Return on Assets***	4.93%	2.65%	(2.29%)

*Includes transfers, restorations, and payables.

**Amount by which actual differs from assumed investment returns for LEOFF 2 Trust Fund. Source WSIB.

***Time-weighted return on MVA.

Next Steps For The 2016 Actuarial Valuation

- Finalize plan liabilities, funded status, and contribution rates
- Present results at future Board meeting
- Provide final report to Board members and LEOFF 2 staff
- No Board action required



Purpose Of Experience Studies

- Determine whether assumptions remain reasonable or should be changed
- Actuarial services must satisfy applicable ASOPs
- ASOPs require that assumptions
 - Take into account relevant historical and current economic data
 - Reflect the actuary's best estimate of future expectations
- Reasonable assumptions contribute to reasonable funding
- Appropriate funding levels help manage risks
 - Insufficient accumulation of assets increases risk of additional funding requirements – intergenerational “inequity”

Managing Risk

- Pensions are promises to pay future lifetime benefits
- Assumptions used to project future outcomes
 - Involve uncertainty/risk
- When assumptions are wrong, plan may be underfunded
 - Want to be on the “right side” of risk (reasonable conservatism)
- Risk isn't symmetrical
 - Best estimate assumption may not fall in the mean (50th percentile)
- Balance risk management with other stakeholder needs
 - State and local budgets
 - Member take-home pay
 - Benefit/plan security



OSA Performs Economic And Demographic Experience Studies

- Economic Experience Studies are performed every 2 years
 - Required in statute 41.45.030 for reporting to the PFC (all plans except LEOFF 2)
 - LEOFF 2 Board typically follows the PFC timeline
 - Includes some plan-specific data as well as national and regional economic data
- Demographic Experience Studies are performed at least every 6 years
 - More focus is placed on historical experience at a plan-specific level
 - Covers assumptions such as termination, mortality, retirement, disability
 - Next study scheduled to be completed in 2019 for the period 2013-2018

Experience Studies Consider Past And Future Experience

- Analyze historical data and experience
 - Plan or system experience
 - National or regional experience
- Review projections for future expectations
 - Collaborate with other state agencies
- Analyze conditions that created certain experience
 - Are they outliers – highly unlikely to occur again?
 - May remove or limit reliance on those data points
 - Are they within range of expected outcomes?
 - Keep the data points and comment on the conditions and likelihood they occur again
 - Did they occur because of policy or plan changes?
 - Data points may require adjustment



Past And Future Experience Is Blended Together

- Develop single point best estimate assumption
- Actuaries follow guidance in ASOPs
 - ASOPs no longer support a “best estimate range”
- Requires professional judgment
 - Past is not always the best predictor of the future
 - Part of actuary’s training and development
- Mix of art and science



Three Economic Assumptions Applicable To LEOFF 2

- Rate of inflation
- Rate of general salary increases
- Rate of investment return
- Help us estimate
 - Future benefits payable from the plans
 - Today's value of future benefits and salary
 - Funding requirements (contribution rates) needed to secure those benefits

Rate Of Inflation

- Inflation assumption used in our valuation model to estimate the amount of post-retirement Cost-of-Living Adjustments (COLAs) provided under the plan
- LEOFF 2 COLAs are based on Regional CPI (Seattle, Tacoma, Bremerton)
- Current assumption: 3.00%
- Includes
 - National inflation
 - Adjustments for regional inflation



Rate Of General Salary Increases

- Represents a portion of the rate of change in an individual's salary
- Future salary levels impact an individual's benefit and contributions to the plan
- Current assumption: 3.75% annual salary growth
- Includes
 - Total inflation
 - Productivity growth
- Excludes promotions or merit/step increases that are included in plan-specific demographic assumptions

Rate Of Investment Return

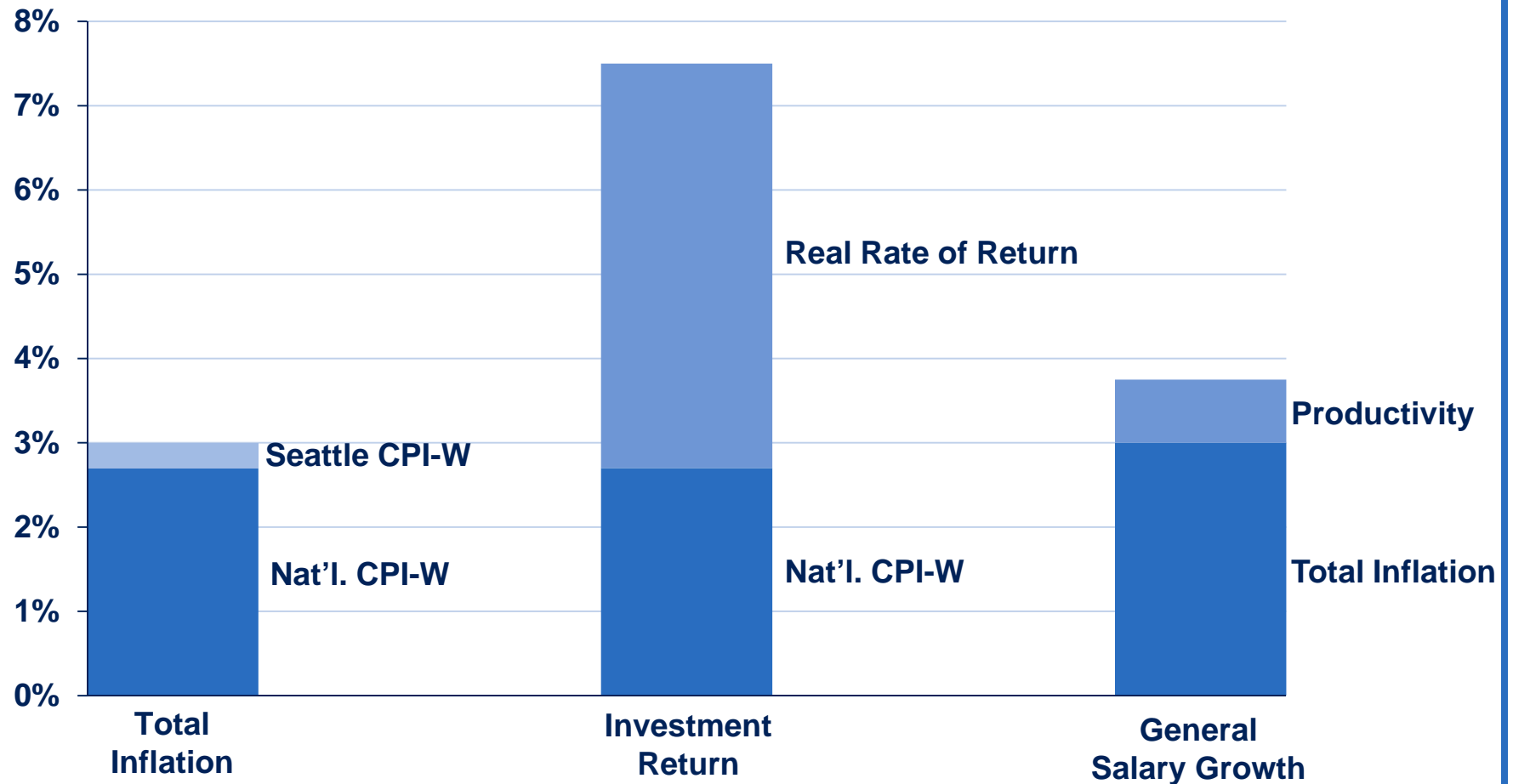
- Reflects anticipated returns on plan's current and future assets
- Assumption used to determine today's value of future benefit payments and salaries
- Key assumption for determining contribution requirements
- Current assumption: 7.50% annual asset growth
- Includes
 - National inflation
 - Real rate of return



How The Assumptions Interact

- Entire set of economic assumptions should be consistent
- Developed using the building block method
 - Accepted approach under Actuarial Standards Board guidelines
 - Inflation component is the base for salary growth and investment return assumptions

Building Block Example



Recommended Assumptions Presented For Adoption

- Entire set of economic assumptions should be consistent
- If no changes are recommended
 - Actuary's best estimate matches current assumptions
- If changes are recommended for one or all assumptions
 - Actuary's best estimate is materially different from the current assumptions to support a change
 - Fiscal impact will likely result
 - Important to maintain appropriate funding levels and manage risks
 - Actuary will comment on whether current assumptions remain reasonable
- Adoption of new assumptions incorporated in the next rate-setting valuation

What's Next For The Board?

- OSA finalizes actuarial valuation and economic experience study
- Actuarial valuation results presented to the Board at future meeting
 - No Board action required
- Recommendations for economic assumptions presented to the Board in September
 - Supporting analysis provided with the recommendations
 - Board action required to adopt any changes to economic assumptions



Questions?



Data Sources By Assumption

	Inflation	Investment Return	General Salary Growth
DRS			X
WSIB	X	X	
Social Security Administration	X		X
Congressional Budget Office	X		X
Economic and Revenue Forecast Council	X		
Global Insight	X		
Bureau of Economic Analysis			X
Bureau of Labor and Statistics	X		X