

# City of Knoxville Pension System

## Financial Plan and Pension Plan Design – Pleasing Employees and Taxpayers

*presented by*

*Alan Pennington, FSA*

*Bryan, Pendleton, Swats & McAllister, LLC*

*August 12, 2010*

*Today's  
presentation  
will discuss the  
possible ways to  
handle liability  
and plan design  
considerations.*

# City of Knoxville Pension System

## Presentation Overview:

---

1. Risk Profile versus Discount Rate
2. Review of Active and Inactive Liability
3. Review of other plans risk profiles
4. Advantages/ Disadvantages of changing risk profile
5. Self-insured annuities
6. Review benefit structures
7. Defined Contribution plan costs
8. Good governance models for the public sector

# City of Knoxville Pension System

## Discount rate versus Risk Profile

---

1. Determine discount rate  
-> discount rate determines investment policy or,
2. Determine risk profile  
-> Risk profile determines Investment Policy  
-> Investment Policy determines Discount Rate  
-> Discount Rate determines contribution

More risk – higher potential returns/ more expected volatility/ lower potential contributions

Less risk – lower potential returns/ lower expected volatility/ higher expected contribution

# City of Knoxville Pension System

Review of Active and Inactive liability 7/1/2009

---

Active Liability	\$160M
Inactive Liability	\$401M
Total Plan Liability	\$561M
Inactive as a % of Total	71.4%

# City of Knoxville Pension System

## Review of other Plans vs Knoxville

Entity (Assets)	Valuation Rate	Inactive Liability	Fixed Income
Knoxville (420M)	8.00%	71%	35%
Nashville (1.6B)	8.00%	35%	37%
CALPERS (200B)	7.75%	49%	28%
TCRS (40B)	7.50%	38%	44%
Average*	7.75%	42%	36%

\* Excluding Knoxville

# City of Knoxville Pension System

## One Measure of Risk Profile

Entity (Assets)	Inactive Liability	Non-Fixed Income	Inactive x Non-Fixed
Knoxville (420M)	71%	65%	46%
Nashville (1.6B)	35%	63%	22%
CALPERS (200B)	49%	72%	35%
TCRS (40B)	38%	56%	21%
Average*	42%	64%	27%

\* Excluding Knoxville

# City of Knoxville Pension System

## Risk Profile – Modified Investment Policy

Entity (Assets)	Inactive Liability	Non-Fixed Income	Inactive x Non-Fixed
Knoxville (420M)	71%	38%	27%
Nashville (1.6B)	35%	63%	22%
CALPERS (200B)	49%	72%	35%
TCRS (40B)	38%	56%	21%
Average*	42%	64%	27%

\* Excluding Knoxville

# City of Knoxville Pension System

## Knoxville – Current vs Modified Assumptions

---

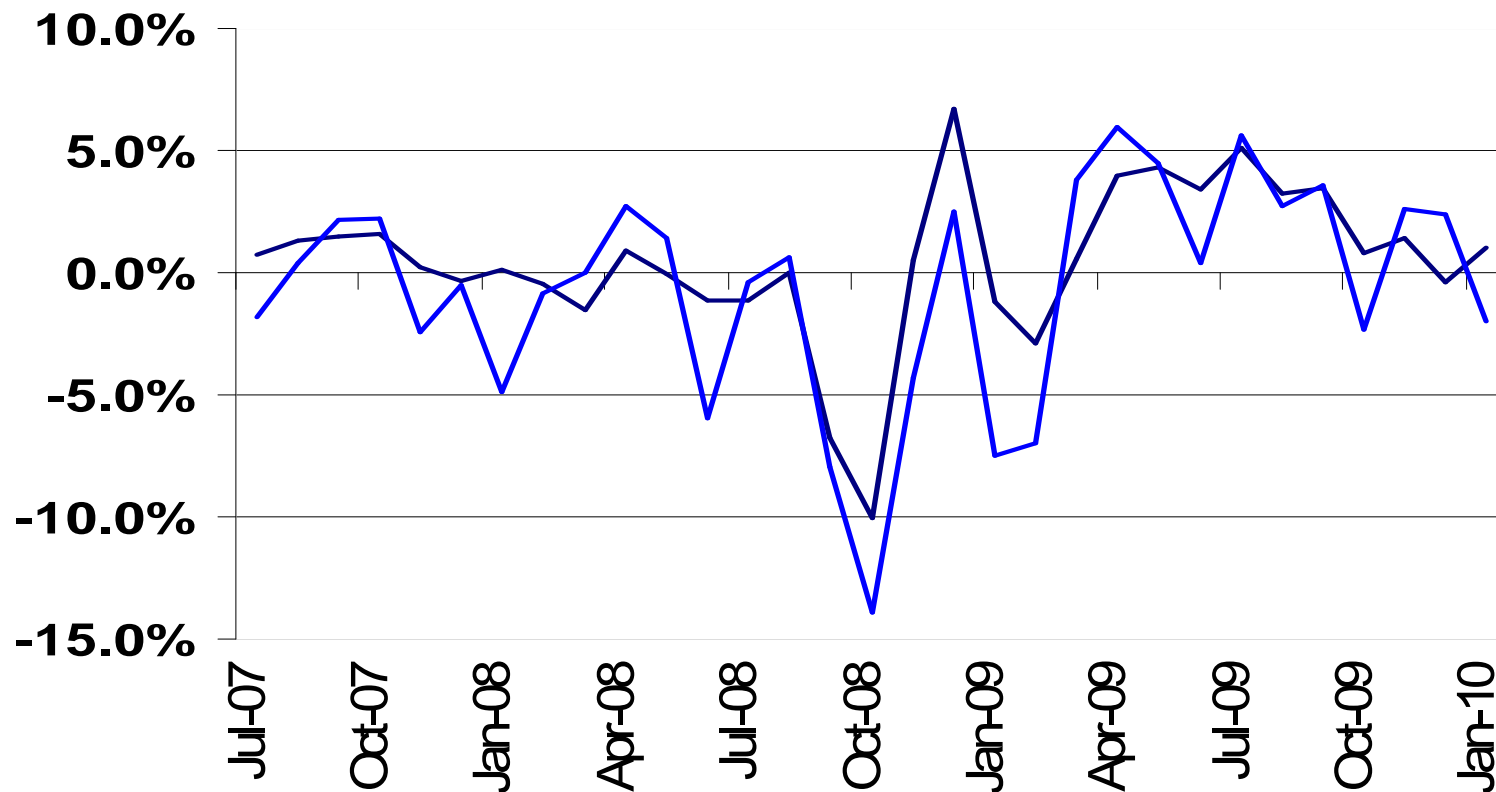
	Valuation Rate	Inactive Liability	Fixed Income
Current	8.00%	71%	35%
Modified	6% / 8%*	71%	65%

\* 6% post-retirement / 8% pre-retirement



# City of Knoxville Pension System

## Monthly Asset Return: Fixed Income v Other



# City of Knoxville Pension System

What if...

---

	Actual	What if *
Market Value 7/1/07	\$546M	\$546M
Market Value 1/31/10	\$410M	\$522M
Minimum Market Value	\$336M	\$408M
Employer Contributions	\$15M	\$40M

\* The above projections show likely outcomes if the plan had been invested 70% fixed income as of July 1, 2007.

# City of Knoxville Pension System

Liability 7/1/2009: 8% vs 6% post-retirement return

	Bd of Ed	Div C	GG	Total
8%	\$82M	\$321M	\$156M	\$559M
6%	\$94M	\$391M	\$189M	\$674M
Increase	\$12M	\$70M	\$33M	\$115M

# City of Knoxville Pension System

Normal Cost 7/1/2009: 8% vs 6% post-ret return

---

	Div C	GG	Total
8%	12.7%	5.1%	8.8%
6%	17.4%	7.3%	12.3%
Increase	4.7%	2.2%	3.5%

# City of Knoxville Pension System

## Advantages of Current Policy

---

1. Expected asset returns are higher (than modified policy).
2. Projected contributions are lower.
3. Requires no change.

# City of Knoxville Pension System

## Advantages of Modified Policy

---

1. Less asset volatility - > less contribution volatility
2. Once inactive liability is fully funded, it's much less likely that additional contributions will be required for those members.
3. Largest asset gains and losses apply to active members who have longer period to absorb gains and losses.
4. Policy is consistent with other large governmental plans.
5. Minimize likelihood of repeating performance of prior two years.

# City of Knoxville Pension System

## Disadvantages of Modified Policy

---

1. If future asset returns meet expectations, asset returns will be lower and contributions will be higher.
2. Requires change from current policy.

# City of Knoxville Pension System

## How to change balance Inactive Liability v Fixed Assets

---

1. Change asset mix (weight more toward fixed income)
2. Purchase annuities (reduces inactive exposure)
3. Create self-insured annuities (more assets in fixed income)



# City of Knoxville Pension System

## Self-Insured Annuities

---

1. A portion of assets are aside for a portion of inactive liability
2. Assets set aside are invested more conservatively (with input from Summit)
3. Could adopt a 20 or 30 year transition period.

# City of Knoxville Pension System

## Self-Insured Annuities

---

1. Self-insure 100% of Board of Education liability.
2. Self-insure inactive non-BDED liability such that inactive liability that is not self-insured does not exceed 50% of active liability.
3. Change post-retirement discount rate from 8% to 6% (200 bps):
  - a) 10 basis points per year for 20 years or
  - b) 6.67 basis points per year for 30 years

# City of Knoxville Pension System

Limit Inactive Uninsured to 50% of Active

Liability	Total	Div C	GG
Active	\$160M	\$90M	\$70M
Inactive	\$320M	\$231M	\$89M
Inactive Uninsured	\$80M	\$45M	\$35M
Inactive Self-Insured	\$240M	\$186M	\$54M
Total Uninsured	\$240M	\$135M	\$105M

# City of Knoxville Pension System

## Current Cost vs 6% Post Retirement (\$M)

---

	Current	30 Years	20 Years	Full Phase In
Board of Education	0.26	0.30	0.32	1.46
Uniformed Bodies	5.49	5.66	5.74	11.51
General Govt	2.99	3.11	3.17	7.42
Total	8.74	9.07	9.23	20.39
Increase		0.33	0.49	11.65

# City of Knoxville Pension System

## Current Cost vs 6% Post Retirement (% Pay)

---

	Current	30 Years	20 Years	Full Phase In
Uniformed Bodies	18.57%	19.14%	19.43%	38.94%
General Govt	9.73%	10.14%	10.35%	24.19%
Total	14.26%	14.75%	15.00%	31.85%
Increase		0.50%	0.74%	17.59%

# City of Knoxville Pension System

## Next Steps

---

1. Any desire to pursue self-insured or other option to change risk profile?
2. Ready to make any decision on actions/timing or need more information?
3. Asset Liability study could be used to give specific illustrations of various risk profiles.

# City of Knoxville Pension System

## Other Actions:

---

1. Determine what, if any, next step on Self-Insurance Option
2. See further projections regarding asset smoothing and amortization periods (June/July 2010)
3. Valuation Results/ Experience Study 2010 (Nov/Dec 2010)
4. Review plan objectives/benefits

# City of Knoxville Pension System

## Review Benefit Structures

---

Benefits ultimately drive costs.

With costs predicted to increase dramatically, it might be prudent to review current benefit structures to tweak some provisions and (as many other groups are doing), consider totally new benefits for new hires.



# City of Knoxville Pension System

## Review Benefit Structures

---

Specific issues to consider:

- How to (or if it would be desirable to) eliminate the one-time decision after 10 years in G1 (to stay or go to G2)
- Revising the DROP to be cost neutral/extend DROP period

# City of Knoxville Pension System

## Defined Contribution plan costs

---

- Determined by DC plan design (% of payroll)
- Will still have unfunded amounts in GG and Uniformed Bodies to amortize over the next 15-28 years
- Will still have Normal Cost (current year accruals) for ongoing active in each group
- Financial impact immediately would not greatly change (cost of DC plan for new hires would approximately equal cost of DB for new hires)
- Once unfunded amounts are paid, the City's cost will be greatly reduced (whether DC plan introduced or not)

# City of Knoxville Pension System

## Good governance

---

Goal of pension governance: optimize benefits to stakeholders while minimizing risk exposure

# City of Knoxville Pension System

## Good governance

---

Good governance addresses the following areas:

- Functions/responsibilities
- Plan design
- Funding and investment policy
- Legal compliance
- Administration
- Cost effectiveness
- Communication
- Conflicts of Interest

# City of Knoxville Pension System

## Good governance

---

- Consists of
  - Regularly monitoring process
  - Keeping abreast of current best practices