Municipal Policemen's and Firemen's Pension and Relief Funds of West Virginia

Actuarial Valuations as of June 30, 2013

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Agenda

- Background
- Upcoming Issues for Consideration
- Individual Actuarial Valuation Reports
- Consolidated Actuarial Valuation Results
  - July 1, 2013 Valuation Results
  - Historical Results
  - Projection Results
- Funding Policy Choices

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Background

Purpose of the Valuations

- Individual actuarial valuations were performed for all 53 Policemen's and Firemen's Pension and Relief Funds of West Virginia as of July 1, 2013
- Primary purpose of the actuarial valuations is to assess the adequacy of the funding policy currently in use by each participating Fund

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Background
Purpose of the Valuations

- Additional purpose of the actuarial valuations is to provide each Municipality with information on:
  - The funding requirements for fiscal year end June 30, 2015
  - The Fund's eligibility to receive an allocation of the premium tax allocation for fiscal year end June 30, 2015
  - The Fund's eligibility to provide Supplemental Benefits for the fiscal year beginning July 1, 2015
  - The advantages and disadvantages of switching to one of the recently available funding policy options (i.e., the Optional and Conservation Funding Policies)

Upcoming Issues for Consideration

- Allowing the Municipalities to NOT contribute normal cost if the plan reaches a certain threshold, such as 125% funded
- Requesting investment policy information, including asset allocation targets, to ensure that the assumed investment return is consistent with the investment policy
- Implications of new accounting standards: GASB No. 67 is replacing GASB No. 25 for pension plan financial reporting requirements (effective in fiscal year ending June 30, 2014) and GASB No. 68 is replacing GASB No. 27 for employer financial reporting (effective in fiscal year ending June 30, 2015). Under the new accounting standards, the unfunded actuarial liability will need to be recognized on the plan sponsor's balance sheet. The new accounting standards will not impact the current contribution policies. GRS will be providing a separate GASB report to each plan sponsor.

Consolidated Actuarial Valuation Results

As of July 1, 2013

Dollars in Thousands

	Standard Policy	Alternative Policy	Optional Policy From Standard	Optional Policy From Alternative	Conservation Policy	All Plans
Participating Plans	8	31	7	5	2	53
Total Plan Members	98	2,317	75	559	753	3,802
Payroll	$2,366	$48,161	$1,657	$10,294	$16,130	$78,608
Benefit Payments	$993	$32,756	$675	$10,063	$13,390	$57,877

Consolidated Actuarial Valuation Results

As of July 1, 2013

Dollars in Thousands

	Standard Policy	Alternative Policy	Optional Policy From Standard	Optional Policy From Alternative	Conservation Policy	All Plans
Actuarial Liability	$21,731	$715,848	$17,027	$201,962	$302,307	$1,258,875
Assets	$12,026	$177,690	$11,909	$45,981	$24,711	$272,317
Unfunded Liability	$9,705	$538,158	$5,118	$155,981	$277,596	$986,558
Funded Ratio	55%	25%	70%	23%	8%	22%
Net Employer Normal Cost	$519	$13,693	$401	$2,983	$5,225	$22,821

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Consolidated Actuarial Valuation Results

As of July 1, 2013

Fiscal year End 2014 Contributions
(Dollars in Thousands)

	Standard Policy	Alternative Policy	Optional Policy From Standard	Optional Policy From Alternative	Conservation Policy	All Plans
Employer Contributions [a]	$1,105	$17,193	$733	$10,422	$10,111	$39,564
State Premium Tax Allocation	$468	$9,763	$290	$2,315	$3,073	$15,909
Employee Contributions	$174	$3,704	$125	$724	$1,290	$6,017

[a] For plans under the Alternative Funding Policy, includes any additional contributions required to satisfy both 15-year solvency tests.

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Consolidated Actuarial Valuation Results

As of July 1, 2013

Fiscal year End 2015 Contributions
(Dollars in Thousands)

	Standard Policy	Alternative Policy	Optional Policy From Standard	Optional Policy From Alternative	Conservation Policy	All Plans
Employer Contributions [a]	$916	$17,891	$666	$9,960	$10,534	$39,967
State Premium Tax Allocation	$497	$10,075	$264	$2,457	$3,167	$16,460
Employee Contributions	$180	$3,846	$122	$717	$1,278	$6,143

[a] For plans under the Alternative Funding Policy, includes any additional contributions required to satisfy both 15-year solvency tests.

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Consolidated Actuarial Valuation Results

As of July 1, 2013

- Unfunded actuarial liability decreased by $11.7 million from $998.3 million at July 1, 2012, to $986.6 million at July 1, 2013, primarily due to:
  - Plan assets experiencing an annualized return of 7.7% compared to the expected annualized return of 5.5% for fiscal 2013, causing a gain of approximately $5.4 million.
  - Liabilities increasing by 0.7% less than expected causing a gain of approximately of $8.7 million due to having salary growth rates and Cost-of-living adjustments less than expected.
  - Liabilities decreasing by approximately $14.4 million due to changes in the discount rate
  - Alternative and Conservation funding policies that did not adequately finance the normal cost plus interest on unfunded actuarial liability resulting in a contribution deficiency of approximately $16.8 million.
- Contributions under the Alternative policy, on average, are not projected to finance the normal cost and the interest on the unfunded actuarial liability until after approximately 16 years

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Consolidated Actuarial Valuation Results

As of July 1, 2013

- Assumed Interest Rate was increased for 15 plans and decreased for two plans, which decreased liabilities by approximately $14.4 million.
  - Due to investment and demographic experience, and increased equity exposures
  - Improved funded ratios and liquidity ratios

Number of Plans	July 1, 2012	July 1, 2013	Change
1	5.5%	7.0%	1.5%
1	6.0%	7.0%	1.0%
2	6.0%	6.5%	0.5%
2	6.5%	7.0%	0.5%
4	5.0%	5.5%	0.5%
5	5.5%	6.0%	0.5%
2	7.0%	6.5%	(0.5)%

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Consolidated Actuarial Valuation Results

As of July 1, 2013

Experience (gain) loss for plan year ending June 30, 2013 ($ in Thousands)		**All Plans**
	Participating Plans:	53
(a)	Unfunded Accrued Liability (UAL) as of 7/1/2012	$998,321
(b)	Decrease to Market Value of Assets at Beginning of Year [b]	401
(c)	Normal Cost due 7/1/2012	29,833
(d)	Interest on (a), (b) and (c) to 6/30/2013 [a]	52,408
(e)	Contributions with interest to 6/30/2013 [a]	(65,933)
(f)	Effect of Assumption Changes on UAL at 6/30/2013	(14,415)
(g)	Expected UAL at 7/1/2013 [(a) + (b) + (c) + (d) + (e) + (f)]	1,000,615
(h)	Actual UAL at 7/1/2013	$986,558
(i)	**Total (Gain)/Loss [(h) -(g)]**	**($14,057)**
	Liability (Gain)/Loss	($8,667)
	Asset (Gain)/Loss	($5,390)

[a] *Interest based on assumptions used for each specific plan as of June 30, 2012.*

[b] *Seven plans restated their Market Value of Assets as of June 30, 2012.*

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Consolidated Actuarial Valuation

Historical Results

Funded Ratio As of July 1	Standard Policy Plans		Alternative Policy Plans		Optional Policy Plans From Standard		Optional Policy Plans From Alternative		Conservation Policy Plans	
	Number	Average	Number	Average	Number	Average	Number	Average	Number	Average
2013	8	55%	31	25%	7	70%	5	23%	2	8%
2012	8	47%	31	23%	7	63%	5	20%	2	7%
2011	9	50%	31	24%	6	62%	5	18%	2	7%
2010	14	44%	32	22%	1	57%	4	12%	2	7%
2009	14	52%	37	19%	NA	NA	NA	NA	NA	NA

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Consolidated Actuarial Valuation

Historical Results

Employer Contribution Rate[2] For FY Beginning July 1	Standard Policy Plans		Alternative Policy Plans		Optional Policy Plans From Standard		Optional Policy Plans From Alternative		Conservation Policy Plans	
	Number	Average[1]	Number	Average	Number	Average	Number	Average	Number	Average
2014	7	38%	31	36%	7	41%	5	98%	2	66%
2013	7	47%	31	36%	7	44%	5	101%	2	53%
2012	7	42%	31	33%	7	36%	5	95%	2	50%
2011	8	51%	31	32%	6	47%	5	97%	2	49%
2010	13	33%	32	30%	1	45%	4	103%	2	31%
2009	13	34%	37	39%	NA	NA	NA	NA	NA	NA

[1] One outlying Standard Policy Fund, excluded from this table, is closed to new employees, has six retired members, no active members, and no payroll.

[2] As a percent of payroll.

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Consolidated Actuarial Valuation
Historical Results

Consolidated Actuarial Valuation Historical Investment Returns		
Plan Year Ending June 30	**Estimated return on Market Value of Assets**	**Assumed return on Market Value of Assets**
2013	7.7%	5.5%
2012	1.7%	5.5%
2011	13.8%	5.3%
2010	8.9%	6.3%
2009	(9.5)%	6.3%
2008	(3.3)%	6.3%

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Consolidated Actuarial Valuation

Historical Results

- Key observations of historical results
  - Standard plans
    - No standard plans elected the optional funding policy during the year ended June 30, 2013
    - The funded ratio for the eight plans remaining as standard increased from 47% in 2012 to 55% in 2013. These increases are primarily due to favorable investment experience
    - The average contribution rate for the eight plans remaining as standard changed from 42% of payroll for FY 2013, to 47% for FY 2014, and to 38% for FY 2015.

Consolidated Actuarial Valuation

Historical Results

- Key observations of historical results
  - Alternative plans
    - No alternative plans elected the optional funding policy during the year ended June 30, 2013
    - The average funded ratio for alternative plans increased from 23% in 2012 to 25% in 2013
    - The average contribution rate for the 31 plans remaining as alternative changed from 33% of payroll for FY 2013, to 36% for FY 2014, and to 36% for FY 2015.
  - Optional plans that switched from the Alternative Policy
    - The average funded ratio increased from 20% in 2012 to 23% in 2013
    - The average contribution rate for the five plans changed from 95% of payroll for FY 2013 , to 101% for FY 2014, and to 98% for FY 2015.

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Historical Results

- Key observations of historical results
  - Optional plans that switched from the Standard Policy
    - The average funded ratio increased from 63% in 2012 to 70% in 2013
    - The average contribution rate for the seven plans changed from 36% of payroll for FY 2013 , to 44% for FY 2014, and to 41% for FY 2015.
  - Conservation plans
    - The average funded ratio increased from 7% in 2012 to 8% in 2013
    - The average contribution rate for the two Charleston plans changed from 50% of payroll for FY 2013 , to 53% for FY 2014, and to 66% for FY 2015.

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Historical Results

- Key observations of historical results
  - Investment policy
    - West Virginia Code §8-22-22, as of July 1, 2009, increased the equity allocation limits
    - Investing in equities is generally appropriate given the long-term nature of the Plan's benefit obligation, but
      - Some Plans have not invested a significant portion of assets in equities
      - Liquidity strain may not allow some Municipalities to invest in equities
    - May be difficult to support an investment return assumption of even 6.0% due to asset mix and/or liquidity strain

Consolidated Actuarial Valuation

Projection Results

- Projection methodology
  - 40-year projections, on an open group basis
  - Municipalities contributing under the alternative funding policy are assumed to elect the standard funding policy when their funded ratio exceeds 80% (which is equivalent to the unfunded liability being less than 25% of the assets) and contributions are lower
    - By 2031, only seven out of 31 plans are projected to switch from the alternative funding policy to the standard funding policy

Consolidated Actuarial Valuation

Projection Results

Projected Distribution of Plans

Projection Period	Target Contribution Rate	2013 Valuation Number of Plans				
		Standard Plans	Alternative Plans	Optional From Standard	Optional From Alternative	Conservation Plans
	Less Than:					
2013	**40%**	3	21	4	2	0
2023	**40%**	6	15	4	2	0
2033	**40%**	8	12	7	3	0
2043	**40%**	8	16	7	5	0
2053	**40%**	8	24	7	5	2
Of Total Number of Plans:		**8**	**31**	**7**	**5**	**2**

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Consolidated Actuarial Valuation
Projection Results

Projected Distribution of Plans

Projection Period	Target Contribution Rate	2013 Valuation Number of Plans				
		Standard Plans	Alternative Plans	Optional From Standard	Optional From Alternative	Conservation Plans
	Less Than:					
2013	40%	3	21	4	2	0
2023	40%	6	15	4	2	0
2033	40%	8	12	7	3	0
2043	40%	8	16	7	5	0
2053	40%	8	24	7	5	2
Of Total Number of Plans:		**8**	**31**	**7**	**5**	**2**

Projected Distribution of Plans

Valuation As of July 1	Percentage of Plans that are Projected to be Fully Funded by 2031				
	Standard	Alternative	Optional from Standard	Optional from Alternative [a]	Conservation
2013	100%	19%	100%	0%	0%
2012	100%	10%	100%	0%	0%
2011	100%	10%	100%	20%	0%

[a] All former Alternative plans that selected the Optional policy are projected to be fully funded by 2050.

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Consolidated Actuarial Valuation

Projection Results

- Key observations of projection results
  - Standard funding policy:
    - Produces stable employer costs
    - Is consistent with actuarial standards
    - Fully amortizes unfunded actuarial liability by 2031
  - Alternative funding policy:
    - Does not adjust for actuarial experience
    - Employer contribution requirements grow exponentially, to over 100% of payroll for some plans
    - The projected funded ratio grows at a very slow rate leaving the funds in jeopardy for many years if there is another significant market downturn

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Consolidated Actuarial Valuation

Projection Results

- Key observations of projection results
  - Alternative funding policy (Continued):
    - One Fund using the Alternative method would need to make additional contributions in 2015 to satisfy the 15-year Solvency Test on an Open Group Basis in order to receive 100% of the State Premium Tax Allocation
    - Five Funds using the Alternative method would need to make additional contributions in 2015 to satisfy the 15-year Solvency Test on a Closed Group Basis in order to provide Supplemental Benefits

Consolidated Actuarial Valuation

Projection Results

- Key observations of projection results
  - Alternative funding policy:
    - One key concern of the Alternative policy is the level of required contributions relative to the sum of normal cost and an amortization payment on the unfunded liability.
    - A sound funding policy generally finances, on an annul basis, normal cost plus 6% to 8% of the unfunded liability.
    - Only four of 31 Alternative plans are contributing in fiscal 2015 at a level that approximates a sound funding basis.
    - By 2035, this increases to 17 out of 31 plans but takes into account 20 more years of 7% increases in annual contributions

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Projection Results

Level of Alternative Plan Contributions

Employer Contributions Plus State Premium Tax Allocation	Number of Alternative Plans Satisfying Conditions in	
	FY 2015	FY 2035
100% of Net Normal Cost plus 0% to 2% of Unfunded Actuarial Liability	14	4
100% of Net Normal Cost plus 2% to 4% of Unfunded Actuarial Liability	8	7
100% of Net Normal Cost plus 4% to 6% of Unfunded Actuarial Liability	5	3
100% of Net Normal Cost plus 6% or more of Unfunded Actuarial Liability (Sound Policy)	4	17

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Projection Results

- Key observations of projection results
  - Optional funding policy:
    - Produces stable employer costs
    - Is consistent with actuarial standards
    - Fully amortizes unfunded actuarial liability by 2031 for prior Standard plans and by 2050 for prior Alternative Plans
  - Conservation funding policy:
    - Does not adjust for actuarial experience
    - The projected funded ratio grows at a very slow rate leaving the funds in jeopardy for many years if there is another significant market downturn
    - Contributions are based on actual retirements and disabilities which could vary significantly from expected results

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Funding Policy Choices

- Basis of Choice
  - Municipalities currently using either the Standard funding policy or the Alternative funding policy may switch to the **Optional** funding policy
    - Local plan is closed and new employees covered under recently established multiple employer statewide plan
    - Contributions to the closed local plan equal to normal cost plus closed period amortization of unfunded actuarial liability (18 years remaining as of July 1, 2013 for prior Standard plans and 36.5 years for prior Alternative plans)

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Funding Policy Choices

- Basis of Choice
  - Municipalities currently using the Alternative funding policy may switch to the **Conservation** funding policy
    - Local plan is closed and new employees covered under recently established multiple employer statewide plan
    - Employer Contributions to the closed local plan equal to benefits and expenses on a pay-as-you-go basis, net of a portion of employee contributions and a portion of premium tax allocation

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Funding Policy Choices

- Basis of Choice
  - Municipalities are assumed to participate in the recently established statewide cost sharing pension plan if and when they are expected to receive contribution relief
  - Contribution relief implies the Municipality's total contributions to the closed plan and the recently established statewide plan are projected to be less than contributions to the current plan

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Funding Policy Choices

Year Municipality Contributions Are Lower

	Number of Alternative Plans	
Year Municipality Contributions are lower	**If Optional Policy is selected**	**If Conservation Policy is selected**
2015	3	8
2016 to 2019	4	1
2020 to 2029	5	11
2030 to 2039	6	9
After 2040	13	2

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Funding Policy Choices

- General observations – Alternative policy plans electing either Optional or Conservation Funding Policy
  - Effectively defers when the Fund receives contributions
  - Causes the funded ratio of the closed plan to grow at a significantly slower rate when compared to the current policy
  - Plans with dangerously low funded ratios, such as less than 30%, could be in more financial risk if the contributions are decreased due to the election of either the Optional or Conservation policies
  - Although not apparent from the aggregate projections, some large severely under funded plans are projected to have very little growth in the funded ratio over the next 20 years

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Funding Policy Choices

- Key Observations – Optional Funding Policy
  - Municipalities using the Standard policy are expected to receive immediate contribution relief by switching to the Optional policy with no significant impact to the projected funded ratio
  - Municipalities using the Alternative policy are generally not expected to receive immediate contribution relief from switching to the Optional policy
  - Municipalities using the Alternative policy may find it more affordable in the long run to switch to the Optional funding policy even if it means an increase in employer contributions in the short term

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Funding Policy Choices

- Key Observations – Conservation Funding Policy
  - Municipalities using the Alternative policy are generally not expected to receive immediate contribution relief from switching to the Conservation policy

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Questions

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