

Attachment 2 – What is the Goal?

COMPARISON OF RISK MEASURES IN POSSIBLE FUTURE STATES

Using data for a sample miscellaneous plan, the tables illustrate the risk measures both now and in possible **future** states in order to help the Board assess what level of investment volatility would be an appropriate target in the future. These scenarios are designed to assist in answering the question “Where do we want to be in the future?”

The risk measures are shown for four scenarios:

- **Current State:** based on the current funded status (estimated to be 77%) and current investment volatility (11.7% standard deviation of investment returns)
- **Fully Funded:** based on being 100% funded with the current investment volatility
- **Full Funding - 10% Volatility:** Based on being 100% funded with a 10% investment volatility
- **Full Funding - 8% Volatility:** Based on being 100% funded with an 8% investment volatility

All of these scenarios are based on a sample Miscellaneous Plan.

Note that the particular strategy (flexible glide path vs. blended glide path) does not change the results since the scenarios assume that the reduction in volatility has already been achieved and there is no further reduction in volatility happening.

The three risk measures are:

Table 2.1: Probability of falling below a given funding level (at any point in following 30 years)

Table 2.2: Probability of employer contribution rates exceeding a given level (at any point in the following 30 years)

Table 2.3: Probability of employer contribution rates increasing by more than a given level in a single year (in any of the following 30 years)

Analysis and Conclusions:

- The risk measures are greater when the funding status is below 100% because of the lower funded status.
- Getting to 100% funded significantly reduces the probability of falling to low funded levels.
- Getting to 100% funded with lower volatility of investments is better (in terms of risk) than just getting to 100% funded and the lower the volatility, the lower the risk.

Table 2.1			
Scenario	Probability of Falling Below Given Funding Level (at any point in the following 30 years)		
	40%	50%	60%
Current State	14%	32%	55%
Fully Funded	9%	16%	26%
Full Funding - 10% Volatility	3%	8%	17%
Full Funding - 8% Volatility	1%	3%	10%

Table 2.2			
Scenario	Probability of Employer Contribution Rates Exceeding Given Level (at any point in the following 30 years)		
	30%	35%	40%
Current State	66%	49%	33%
Fully Funded	18%	12%	6%
Full Funding - 10% Volatility	13%	7%	3%
Full Funding - 8% Volatility	10%	5%	2%

Table 2.3			
Scenario	Probability of Employer Contribution Rates Increasing by More Than a Given Level (at any point in the following 30 years)		
	3%	5%	7%
Current State	60%	16%	2%
Fully Funded	45%	18%	3%
Full Funding - 10% Volatility	35%	8%	1%
Full Funding - 8% Volatility	23%	2%	0%