



Supplementary Information: Alternative Investment Return Assumptions

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Alternative investment assumptions: Cost impact on MSRS General Plan (actuarial value)

<u>ACTUARIAL VALUE</u>	7/1/15 estimate (all assumption changes) 8% investment assumption	7/1/15 estimate (all assumption changes) 7.75% investment assumption	7/1/15 estimate (all assumption changes) 7.5% investment assumption
Actuarial Accrued Liability	\$13.8 billion	\$14.2 billion	\$14.7 billion
Actuarial Value of Assets	\$11.2 billion	\$11.2 billion	\$11.2 billion
Funded Ratio	81.0%	78.9%	76.3%
Total Required Contribution as % of Pay	14.8%	15.8%	17.3%
Employee plus Employer Contributions	11.0%	11.0%	11.0%
Sufficiency / (Deficiency) as % of pay	(3.8%)	(4.8%)	(6.3%)

Alternative investment assumptions: Cost impact on PERA General Plan (actuarial value)

<u>ACTUARIAL VALUE</u>	7/1/15 estimate (all assumption changes) *	7/1/15 estimate (all assumption changes)	7/1/15 estimate (all assumption changes)
	8% investment assumption	7.75% investment assumption	7.5% investment assumption
Actuarial Accrued Liability	\$23.1 billion	\$23.7 billion	\$24.3 billion
Actuarial Value of Assets	\$17.1 billion	\$17.1 billion	\$17.1 billion
Funded Ratio	73.8%	72.1%	70.3%
Total Required Contribution as % of Pay	16.4%	17.2%	18.2%
Employee plus Employer Contributions	14.0%	14.0%	14.0%
Sufficiency / (Deficiency) as % of pay	(2.4%)	(3.2%)	(4.2%)

* Uses current law methodology to value future COLAs which assumes the higher 2.5% COLA is paid after the fund attains 90% market value funded ratio for two consecutive years.

Alternative investment return assumptions: Cost impact on TRA (actuarial value)

<u>ACTUARIAL VALUE</u>	FY2015 estimate (all assumption changes) 8% investment return	FY2015 estimate (all assumption changes) 7.75% investment return	FY2015 estimate (all assumption changes) 7.5% investment return
Actuarial Accrued Liability	\$26.6 billion	\$27.7 billion	\$28.5 billion
Actuarial Value of Assets	\$19.5 billion	\$19.5 billion	\$19.5 billion
Funded Ratio	73.2%	70.4%	68.3%
Total Required Contribution as % of Pay	20.97%	22.70%	24.04%
Employee plus Employer Contributions	15.66%	15.66%	15.66%
Sufficiency / (Deficiency) as % of pay	(5.31%)	(7.04%)	(8.38%)

Investment returns critical to funding



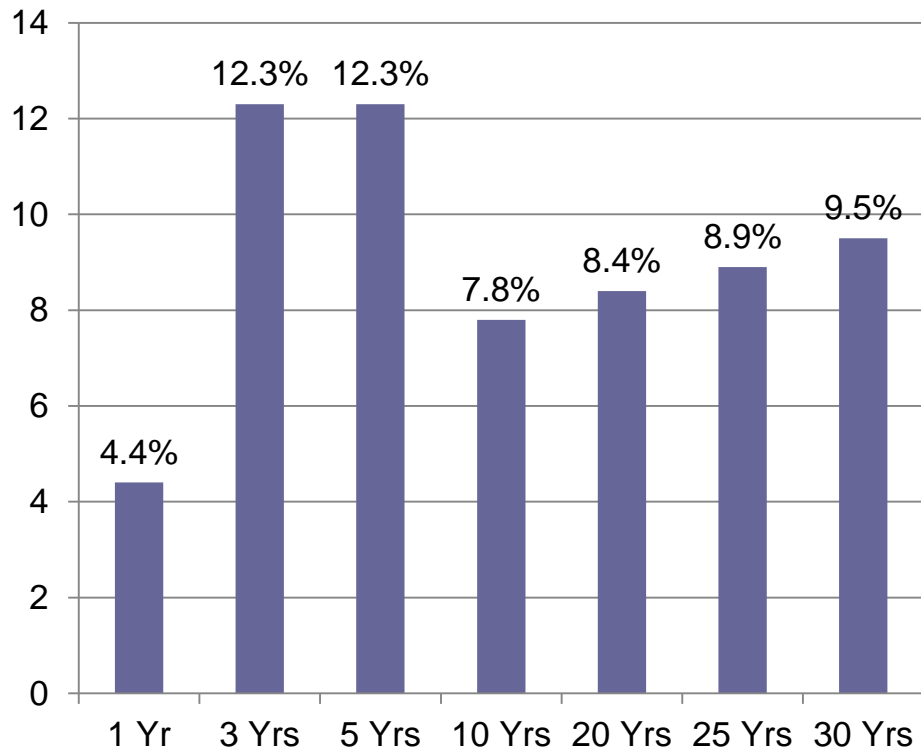
Sources of MN public pension fund revenue, 1990-2014
(PERA, MSRS, TRA)

National public pension average:
(Source: National Association of State Retirement Administrators)



State Board of Investment returns

Periods ending 6/30/15



SBI ranks very high among other funds

	1 Yr	3 Yr	5 Yr	10 Yr
SBI rank vs. all private/public funds (1 = best, 100 = worst)	21st	9th	6th	14th

SBI returns exceed other public funds

Annualized returns

(for periods ending 6/30/2015)

	1 Yr	5 Yr	10 Yr	25 Yr
SBI	4.4%	12.3%	7.8%	8.9%
Public pension median	3.2%	10.4%	6.6%	8.4%