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Consultants and Actuaries

Florida Retirement System

The Actuarial Assumption Estimating Conference Including **Preliminary** July 1, 2004 Actuarial Valuation Results

October 21, 2004

At your request, we have provided this DRAFT presentation prior to completion of the July 1, 2004 Actuarial Valuation Report. Because this is a draft presentation, Milliman, Inc. does not make anv representation or warranty regarding the contents of the presentation. Milliman, Inc. advises any reader not to take any action in reliance on anything contained in this draft presentation. All results from this presentation are subject to revision or correction prior to the release of the final July 1, 2004 Actuarial Valuation Report, and such changes or corrections may be material. No distribution of this draft presentation may be made without our express prior written consent.



All results presented herein are based on the assumptions set forth in the July 1, 1998 – June 30, 2003 Experience Study .

Overview

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Historical Analysis

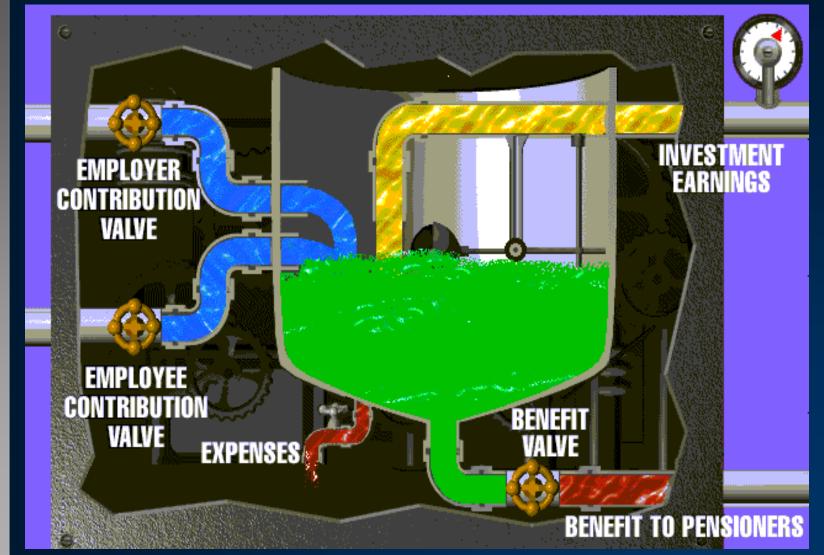
• 2004 Valuation

Projections



Appendix

Actuarial Primer



The Harvard Business Review 1965

Historical Analysis

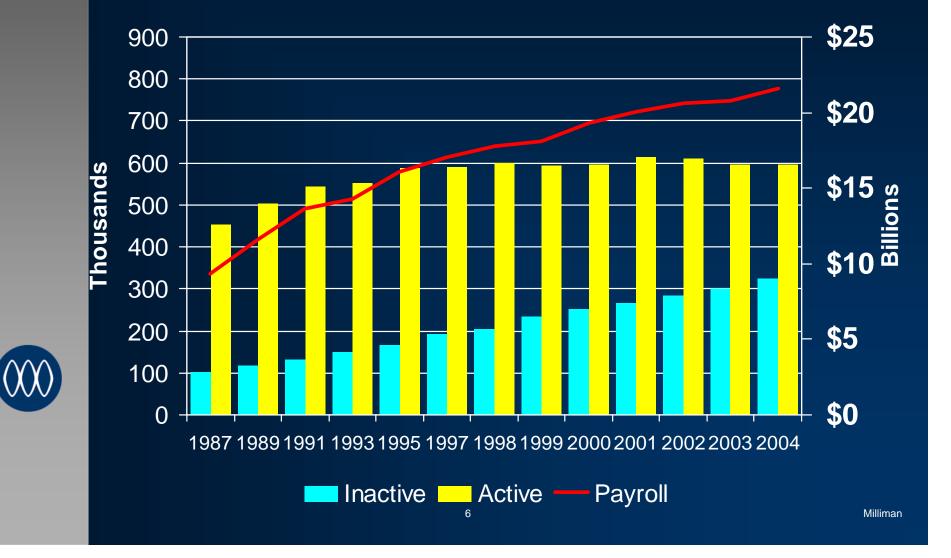
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- Membership & Employer Payroll
- Market & Actuarial Value of Assets
- Liabilities
- Funding Target
- Contributions
- Plan Cash Flows
- Historic Asset Returns

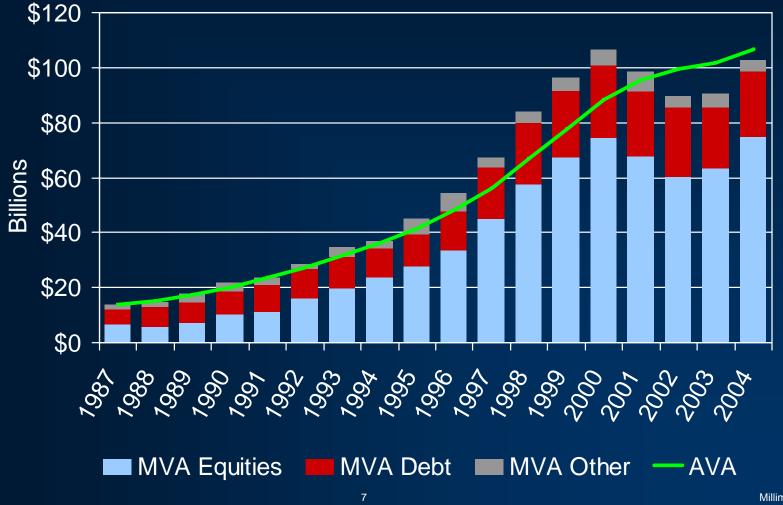


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Membership & Employer Payroll



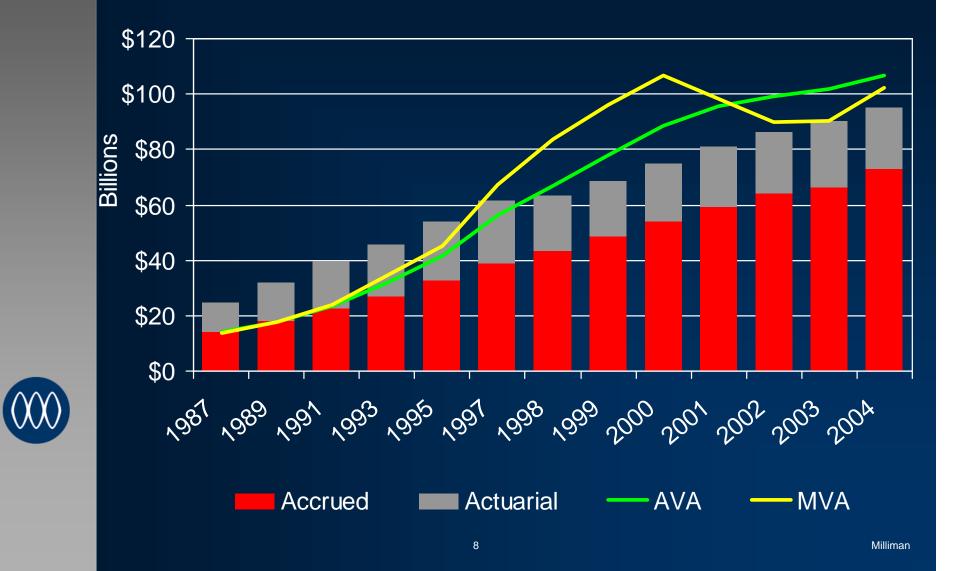
Market & Actuarial Value of Assets





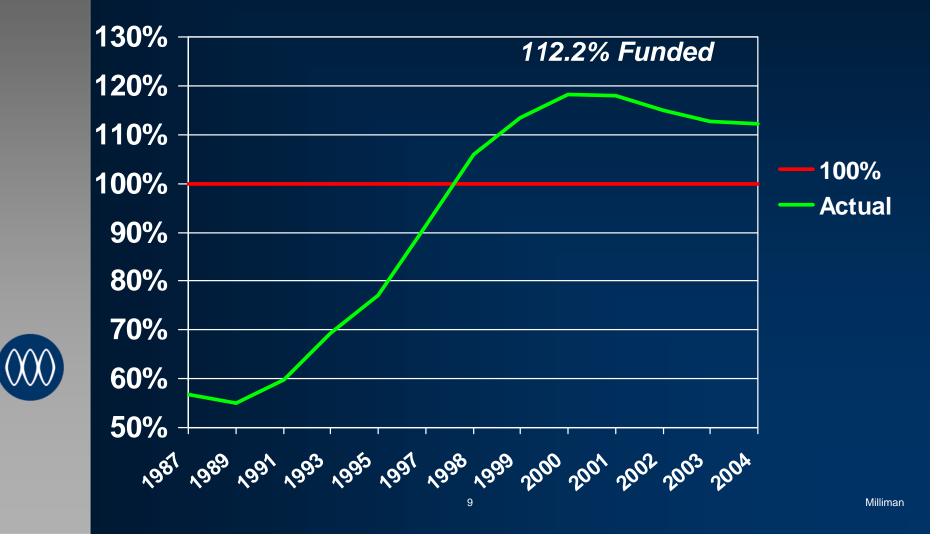
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Liabilities



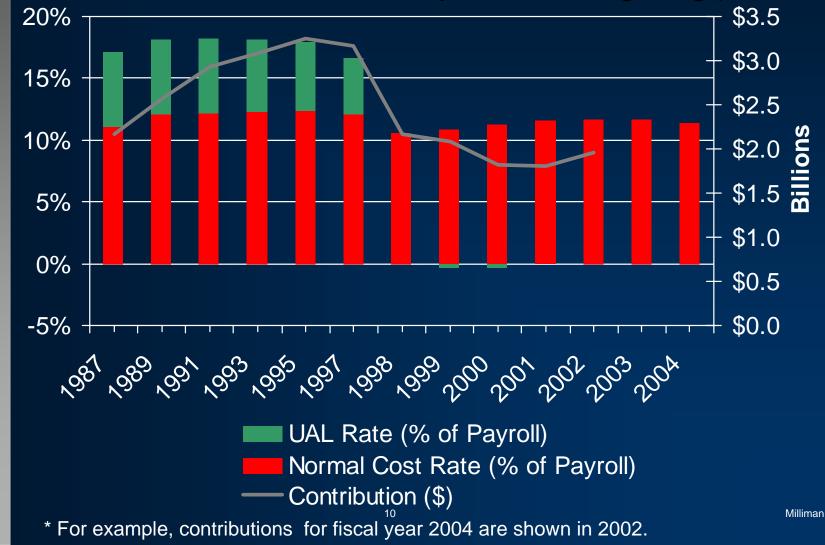
Funding Target

Actuarial Value of Assets / Actuarial Liabilities

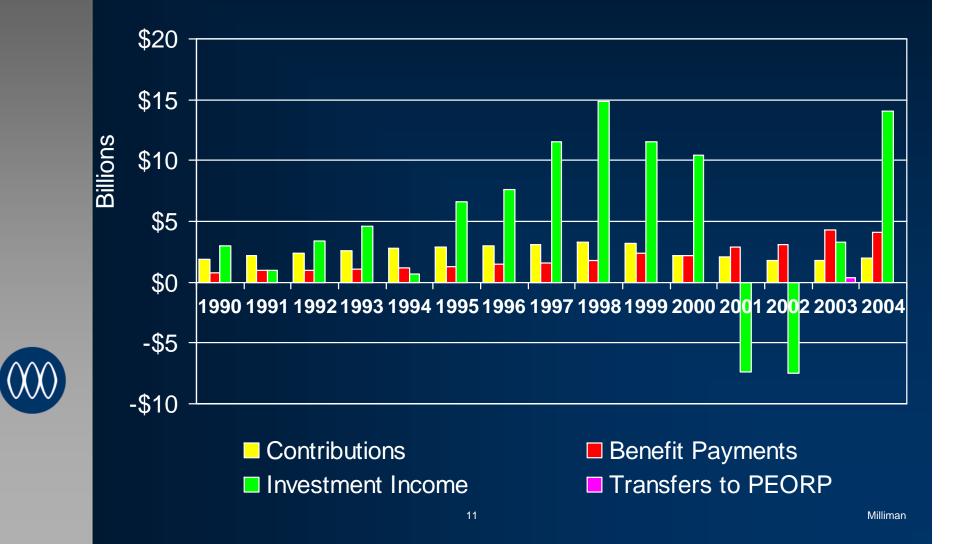


Contributions

(Contribution rate shown in year developed; contribution amount adjusted for budget lag*)



Plan Cash Flows



Historic Returns



2004 Valuation

- Valuation Highlights
- Composite Funding Levels
- Normal Cost Rates
- Summary of PEORP Elections



 Effect of Salary Distribution on Normal Cost Rates

2004 Valuation Highlights

- Results based on July 1, 2004 actuarial assumptions and methods as established by the July 1, 1998 – June 30, 2003 experience study
- FRS remains in a surplus position (i.e. "Fully Funded")



Favorable Asset Performance

• AVA exceeds MVA by 4.2% or \$4.3 billion

Asset Smoothing

Five-Year smoothing method helps alleviate heavy losses (on an actuarial basis) at times of unfavorable asset performance. However, large gains are also not "felt" at once.



Assets: MVA vs. AVA

(in Billions)

<u>Year</u>	<u>MVA</u>	<u>MVA Return</u>	<u>AVA</u>	<u>AVA Return</u>
1999	\$ 96.1	13.76%	\$ 77.8	14.80%
2000	106.5	10.82	88.5	13.79
2001	98.4	-6.93	95.5	8.82
2002	89.7	-7.62	99.4	5.44
2003	90.5	3.76	101.9	5.10
2004	102.4	15.73	106.7	6.93



In the past the MVA exceeded AVA. However, even after a year of favorable MVA return, the AVA still exceeds the MVA. Due to three prior years of unfavorable MVA returns, the MVA needs to continue to earn more than 7.75% to cover the "banked" losses (106.7 - 102.4 = 4.3 billion). MVA Return in 2003-04 was 15.73%

Composite Funding Levels (\$ Billions)

	<u>2003</u>	<u>2004</u>	<u>Change</u>
Actuarial Liability	\$90.4	\$95.1	5.2%
Actuarial Value of Assets	\$101.9	\$106.7	4.7%
Unfunded Actuarial Liability	(\$11.5)	(\$11.6)	0.9%
% Funded	112.7%	112.2%	



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Normal Cost Rates

	Date of Actuarial Valuation		
<u>Employer</u>	<u>07/01/2003</u>	<u>07/01/2004</u>	<u>Change</u>
FRS Regular	9.98%	9.52%	-0.46%
Special Risk			
Regular	22.16%	21.90%	-0.26%
Administration	12.55%	12.39%	-0.16%
Elected Officer's Class			
Judicial	20.78%	20.44%	-0.34%
Leg-Atty-Cab	15.82%	14.85%	-0.97%
County	17.73%	16.97%	-0.76%
Senior Management	11.64%	13.30%	1.66%
Composite Rate	11.72%	11.37%	-0.35%
Composite Rate			
with DROP at 11.56% last	11.71%	11.33%	-0.38%
year and 10.73% this year	18		Milliman



PEORP - 7/1/2004

<u>Employer</u>	<u>Remaining "Original"</u> <u>Transfers</u>	<u>Contingent Liability</u> (000 omitted)
FRS Regular	15,477	\$237,733
Special Risk		
Regular	536	12,393
Administration	2	(26)
Elected Officer's Class	8	
Judicial	9	(646)
Leg-Atty-Cab	7	155
County	37	206
Senior Management	<u>455</u>	<u>12,975</u>
TOTAL	16,523	\$262,790
2003 TOTAL	21,043	\$312,915
Net Assets transferred	\$353,193	



Actuarial Liability and Asset Projections

- Assuming 7.75% constant investment returns
- Assuming (7.75%) investment return for one year followed by constant 7.75% returns
- Assuming (7.75%) investment returns for two years followed by constant 7.75% returns



 Assuming a 2005 MVA of \$80 billion, followed by Constant 7.75% Investment Returns

* All returns are on a Market₂₀Value Basis

Comparison of Actuarial Liabilities & Assets Assuming **Constant 7.75% Investment Returns**

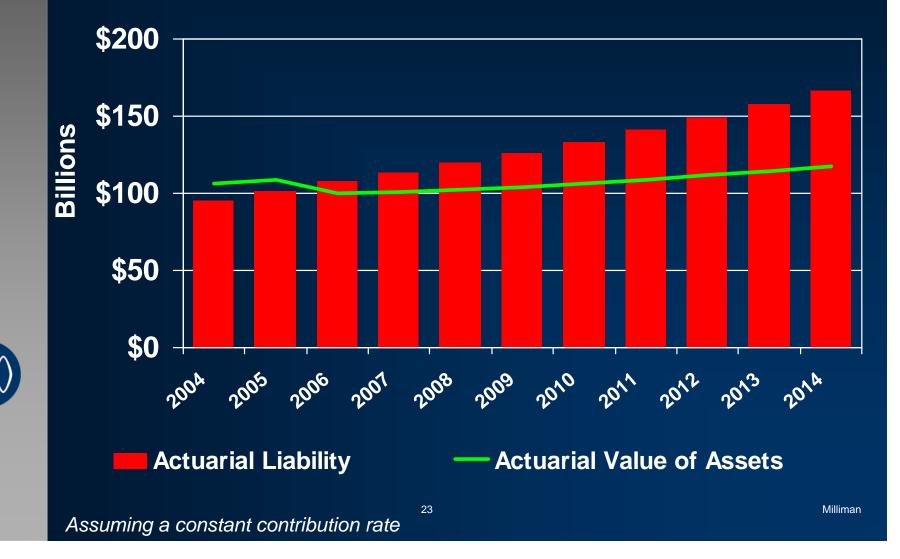


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Comparison of Actuarial Liabilities & Assets Assuming a –7.75% Return followed by Constant 7.75% Investment Returns



Comparison of Actuarial Liabilities & Assets Assuming two years with a –7.75% Return followed by Constant 7.75% Investment Returns



Comparison of Actuarial Liabilities & Assets Assuming a 2005 MVA of \$80 billion, followed by Constant 7.75% Investment Returns



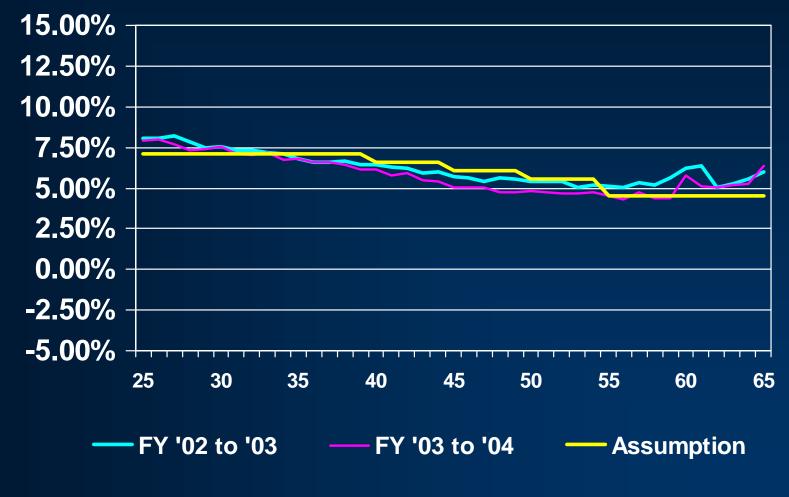
Appendix

Salary Experience

- Compare last two years
- Compare last six years



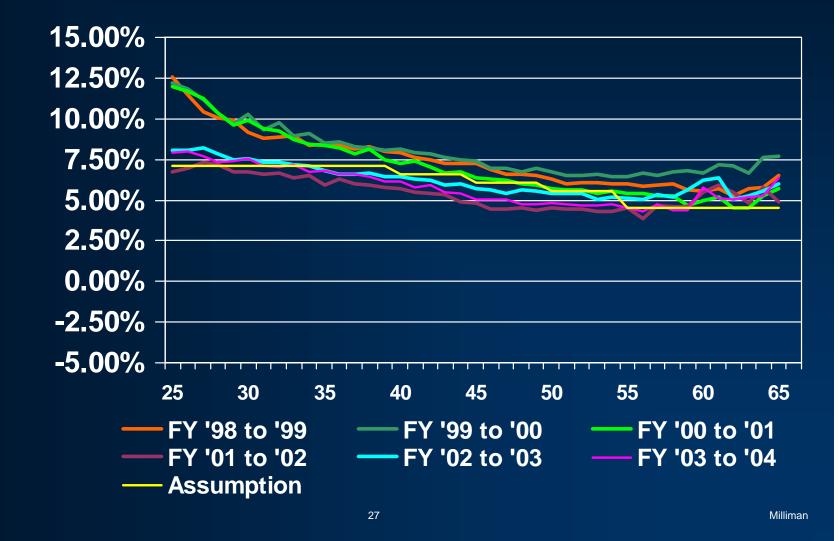
Salary Experience All Actives – Last Two Fiscal Years





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Salary Experience All Actives – By Fiscal Year





The purpose of this presentation is to provide preliminary results of the July 1, 2004 actuarial valuation of the Florida Retirement System Pension Plan and compare them to results from prior valuations. The results are not yet final and are subject to review and possible revision.

We relied, without audit, on information (some oral and some written) supplied by the Division of Retirement. This information includes, but is not limited to, plan provisions, employee data, and financial information. Census data provided to us by the Division has been reviewed for reasonableness and for consistency with data used in prior valuations. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

The actuarial assumptions used in performing this valuation have been recommended by the actuary and adopted by the Actuarial Assumption Conference based on Milliman's most recent review of the System's experience completed during Fiscal Year 2004. We believe the assumptions used reflect our best estimate of anticipated future experience of the plan. The results of this report are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from these assumptions, the true cost of the plan could vary from our results.

